PULP & PAPER

"the Cellulose Age"

JUNE 1952 VOL 26-NO. 6

IN THIS ISSUE:

**PULPWOOD—
AS FAR AS EYE CAN SEE!**

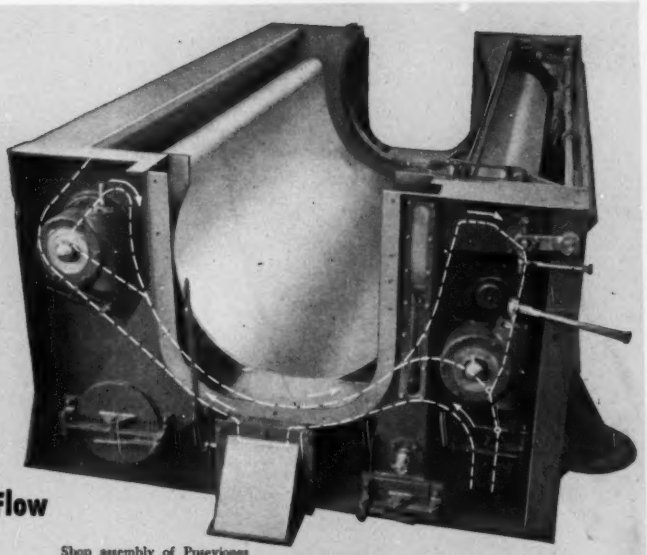
Remarkable air view shows resources of Gaylord Container Corp., heir to vast timberlands of Great Southern Lumber Co., of a past era. It now holds 418,000 acres in Louisiana and Mississippi.

How Gaylord has developed improved methods of handling this wood when it reaches mill is told in exclusive article on page 30.

OTHER FEATURES—
THIS ISSUE:

Let's talk Vats

Fixed Circle or Stream Flow



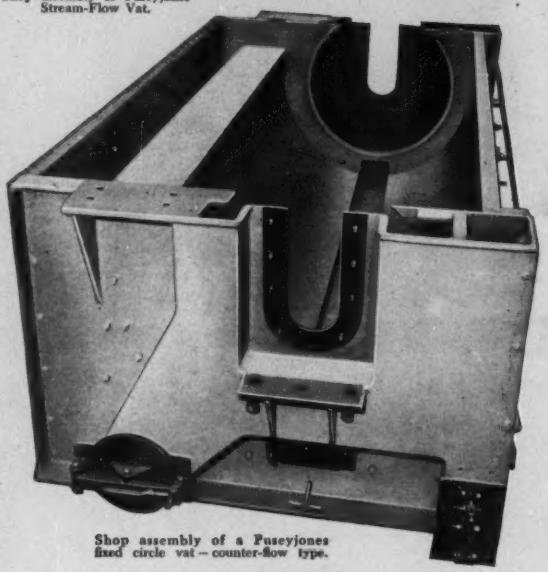
Shop assembly of Puseyjones Stream-Flow Vat.

Here at cylinder vat headquarters, our engineers have an experience that is unique in the Paper Industry.

If a fixed circle vat is what you need, the Puseyjones design – either counter-flow or direct-flow type – is planned to avoid the common limitations which are so costly in day-to-day operation. The fixed circles are supported in a manner to permit building them in or out as needed. The openings to the vat end chambers from inside the cylinder mold are unobstructed. There is free surface run-off of foam over the spill gates. Quick-opening wash-out doors provide easy access to all stock and white water passages.

If an adjustable circle vat is what you need, Puseyjones offers an outstanding development in the Goldsmith Stream-Flow Vat. The simple, rugged adjustable vat circle gives the papermaker a tool roughly comparable to the slice of the fourdrinier machine. Over 45 of these vats are now in operation or under construction . . . and every installation has resulted in greatly improved sheet formation and increased speed possibilities.

Let's talk cylinder vats now. A letter or a telephone call will put Puseyjones engineers at your service.



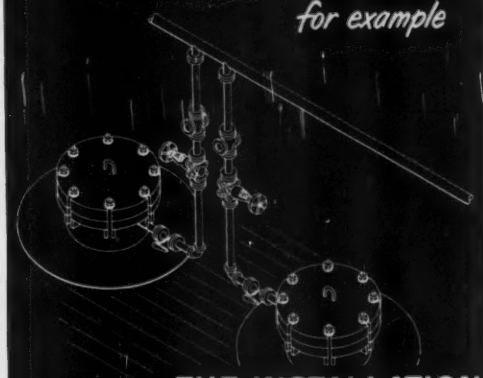
Shop assembly of a Puseyjones fixed circle vat – counter-flow type.

THE PUSEY AND JONES CORPORATION
Established 1848. Builders of Paper-Making Machinery
Fabricators and Welders of all classes of Steel and Alloy Products
Wilmington 99, Delaware, U.S.A.

THE SIGN OF TRADE MARK SUPERIOR QUALITY

Do Your Valves Resist Corrosion Like This?

... on Digester Gases, for example



THE INSTALLATION

VALVE SERVICE RATINGS

CORROSION-RESISTANCE:	Best results ever had
FEATURES:	Plug seating-good for throttling and wide open service
SUITABILITY:	Adopted as standard
MAINTENANCE COST:	No upkeep needed
SERVICE LIFE:	Hardly any wear after 2 years
OPERATING RESULTS:	Better control of digester gases
AVAILABILITY:	Regular Crane Catalog item

Crane Alloy Plug Gate Valves on sulphate digester gas-off service in a large Southern paper mill.

THE HISTORY

Valves in this installation are used to relieve, under throttled flow, the highly corrosive sulphate gases from digesters. Various valves tried gave constant trouble with corrosion, leakage, and difficult operation. Replacements were excessive.

Then Crane 18-8 Mo Alloy Plug Gate Valves were installed on a test basis. After 1 year's service, and again after 2, careful inspection showed hardly a sign of wear or corrosive effects. Meanwhile, the valves operated smoothly; required no maintenance.

So well have Crane valves out-performed and outlasted all others tried, they have been made standard equipment on all digesters.

THE VALVE

One of the leaders in the Crane Alloy line for severe corrosive service—No. 18851 Plug Gate—with 18-8 Mo stainless steel in all parts exposed to flow, including packing gland. Circular, tapered plug seating gives minimum resistance to flow; allows precise control when throttling. Superior design throughout. Flanged or screwed ends. Also in All-Monel. See your Crane Catalog or Crane Representative for full data.

The Complete Crane Line Meets All Valve Needs. That's Why

More Crane Valves Are Used Than Any Other Make!

CRANE VALVES

CRANE CO., *General Offices:* 836 S. Michigan Ave., Chicago 5, Illinois

Branches and Wholesalers Serving All Industrial Areas

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

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How Long Can We Take It?

"How many more times can there be a national crisis because of a steel wage dispute? Every time the Steelworkers' Union and the big steel companies bargain, there is a crisis. Today it is not an *economic* crisis, nor a *production* crisis, nor a *military* crisis. It is a *political* crisis. The prestige of the Democratic Party, the prestige of the Steelworkers' Union, and the prestige of the steel companies are at stake.

"Unfortunately, collective bargaining as a free institution is also at stake.

"Furthermore, the development we are talking about means that all good faith in negotiations disappears. Neither party can afford to take a reasonable or sound position; neither can afford to give and take in the spirit that actuates genuine collective bargaining. Instead, they stand pat on a most extreme position, so that the final outcome will be somewhere in between. That compromise, designed by statisticians and bureaucrats, will have even less merit or reasonableness than a bargain hammered out at a collective bargaining table."—*Paper Worker, I.B. of P.S.P.M.W.*

Young America vs. Sports Clubs. Guess Who Won?

Altruism is a virtue often claimed for themselves by some Rod & Gun Clubs, influential sport leaders, sports goods promoters and sports writers, who wrap robes of righteousness about themselves when they sally forth to attack big industries as alleged wanton destroyers of nature's bounties.

We have no doubt many are most sincere in their self-esteem—though misinformed.

This spring, the city of Seattle opened sizeable Green Lake, right in the midst of its half million population, to fishing. The lake had been restocked with trout.

When it was found that the sportsmen, with their expensive gear, got virtually all the trout, and the kids went home empty-handed after getting their mothers up at 4 a. m., a newspaper proclaimed: "Let's turn the lake over to kids and old men." Hundreds of ordinary, unorganized sportsmen petitioned approval; thousands were thrilled by the generous idea. Seattle has hundreds of lakes, literally, within a few miles where sportsmen can go in their cars. In fact, Seattle itself is virtually surrounded by 32-mile long Lake Washington on one side and Puget Sound on the other, where there are plenty of fish.

Who killed the campaign? Sports clubs, professional and amateur sports leaders shouted it down. Of all things, they argued, that big, bad fish would eat up all the teeny-weeny fish if they, the munificent sportsmen weren't allowed on the lake to catch them! The kids eventually got a part of the lake reserved—that's as far as the state commission would go in defying the organized sportsmen.

Altruism is a wonderful virtue, but like charity, we think it should begin at home.

Fishing Contest—Evidence of Good Life

It is obviously a recognition of the fact that pulp and paper mills are located in some of the finest recreational and outdoor sports regions of the continent, that the Lockport Felt Co. has come up with the idea of a "fishermen's contest" for men and women employes in these mills.

Workers in this industry have an opportunity to lead healthy interesting outdoor lives because they are near or actually on many of the best fishing streams or lakes in America.

While they are enjoying the great outdoors, they can also carry the truth about what this industry is doing to abate pollution to their fellow-fishermen who are so often subjected to distorted propaganda.

Far more money is spent on fishing than any other sport. A lot of it is spent with dollars directly earned in pulp and paper mills.

We congratulate Raymond J. Lee, president of Lockport Felt, for sponsoring this contest which offers 46 prizes topped by an outboard motor and the rest savings bonds totaling $1,625. Contest ends Oct. 1 and rules and entry blanks are available at the mills.

Freedom, and Pulp and Paper

"Any serious crippling of the U. S. pulp and paper industry would be fatal to the free world. And the point of demise would be reached the more quickly because of the peculiar relation of paper to the operation of freedom and of the competitive system."—E. W. Tinker, executive secretary, American Paper & Pulp Association.

IN THIS ISSUE:

PULP & PAPER circulates all over the world. *It is read in virtually every pulp and paper company office and mill throughout the United States, Canada, Mexico, Alaska, Hawaii, the Philippines, Australia and New Zealand. It is read in many other offices and mills in Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Uruguay, Venezuela, England, Ireland, Scotland, Sweden, Norway, Finland, France, Germany, Austria, Belgium, Holland, Czechoslovakia, Italy, Spain, Switzerland, Soviet Russia, Poland, Yugoslavia, India, Pakistan, Israel, South Africa, China, Japan, Formosa, both near and far around the world, where pulp and paper are made.*

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Canadian Forest Products, L't'd.
PACIFIC VENEER AND PLYWOOD DIV.
Chooses SPROUT-WALDRON'S

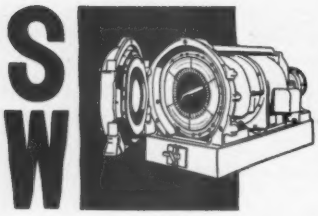
Two Sprout-Waldron 36-2 Refiners *prepare pulp from Asplund Fiber for the well-known* P. V. BRAND hardboard.

- **High pulp quality**
- **High capacity**
- ***Flexibility* of operation**
- **Rugged construction**
- **Low maintenance**

Are you **on our BETTER FIBERS mailing list?**

This Sprout-Waldron technical publication reports important information on new and improved pulping processes—including semichemical pulping.

We will gladly send you copies regularly. Write Sprout-Waldron & Company, Inc., 32 Logan Street, Muncy, Pennsylvania.



SPROUT-WALDRON

PULP REFINERS

230

Let's give them a sales plus in COLOR

Notice how colored wrappings liven things up around a store . . . how they establish identification and give free advertising when they're carried *out* of the store! Sell this forceful idea to your prospects and you'll win steady customers for your papers for wrappings, boxes, bags and gummed tape.

Du Pont is well set up to help you. First, we're aiming an advertising campaign to the stores; we're giving top billing to this important thought:

"When the package tells them where people are buying . . . it's COLOR that does the talking!"

And then, we're offering a technical service that will help you select the dyes that suit any kind of business personality, any specific need. For more information, write E. I. du Pont de Nemours & Co. (Inc.), Dyes and Chemicals Division, Wilmington 98, Delaware.

More color makes more business . . . for your customers and you

FOR MAXIMUM ECONOMY

Du Pont basic dyes

FOR MAXIMUM SOLUBILITY

Du Pont acid dyes

FOR MAXIMUM LIGHT FASTNESS

Du Pont dispersed organic pigments:

Monastral® Fast Blues

Monastral® Fast Greens

Lithosol® Pigments

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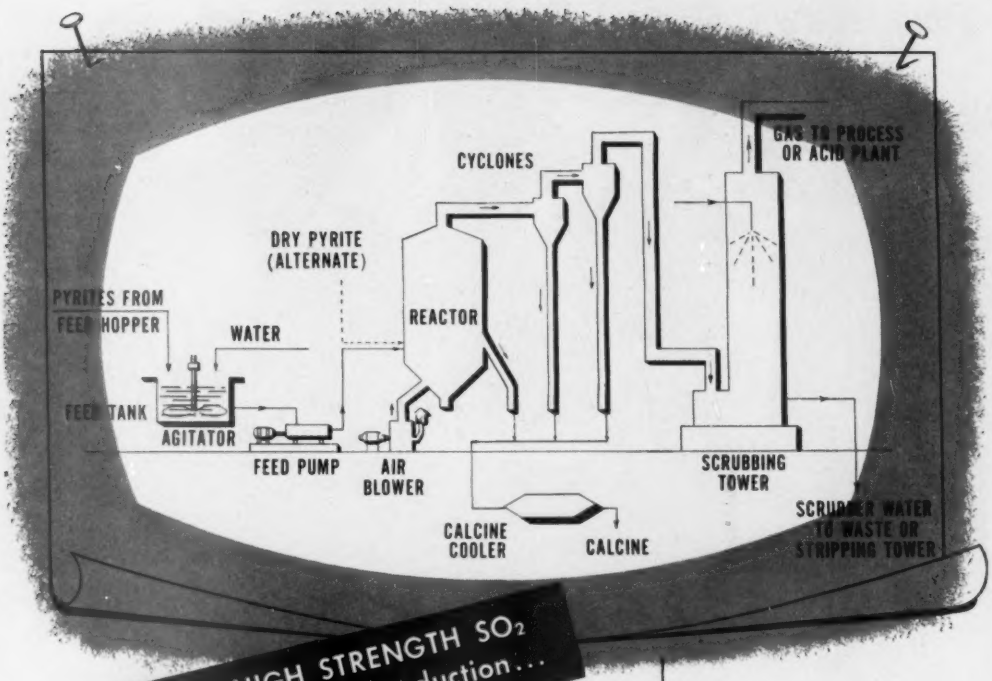
Du Pont Dyestuffs

DU PONT

150th Anniversary

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



Now...HIGH STRENGTH SO_2 for sulphite pulp production...

Dorrco FluoSolids* System gives you 14-15% SO_2 from 48-50% pyrite 12-13% SO_2 from 35% pyrrhotite

Sulphuric acid manufacturers and all users of sulphur dioxide faced with a shortage of elemental sulphur are finding in FluoSolids an economically feasible means of tapping sulphides as an alternate source of SO_2. In sulphite pulp mills alone, eight Dorrco FluoSolids Systems are now being installed.

For detailed information about FluoSolids — a distinct departure from conventional roasters — ask for a copy of Dorrco Bulletin No. 7500. Just write to The Dorr Company, Stamford, Conn., or in Canada, The Dorr Company, 80 Richmond St. West, Toronto 1.

*FluoSolids is a trademark of The Dorr Company Reg. U.S. Pat. Off.

Facts on FluoSolids Systems for SO_2 Production...

Gas Strength will average 14-15% SO_2 dry basis from pyrite carrying 48-50% sulphur, and 12-13% from pyrrhotite carrying 35% sulphur.

Gas Cleaning Equipment is smaller than with conventional methods.

Feed can be relatively coarse — or can be wet.

Low Maintenance because no moving parts are exposed to high temperatures.

No Extraneous Fuel Needed once calcining temperature is reached.

Complete Instrumentation minimizes the "human factor" in operation.

Better tools TODAY to meet tomorrow's demand

DORR

WORLD-WIDE RESEARCH · ENGINEERING · EQUIPMENT

THE DORR COMPANY · ENGINEERS · STAMFORD, CONN.
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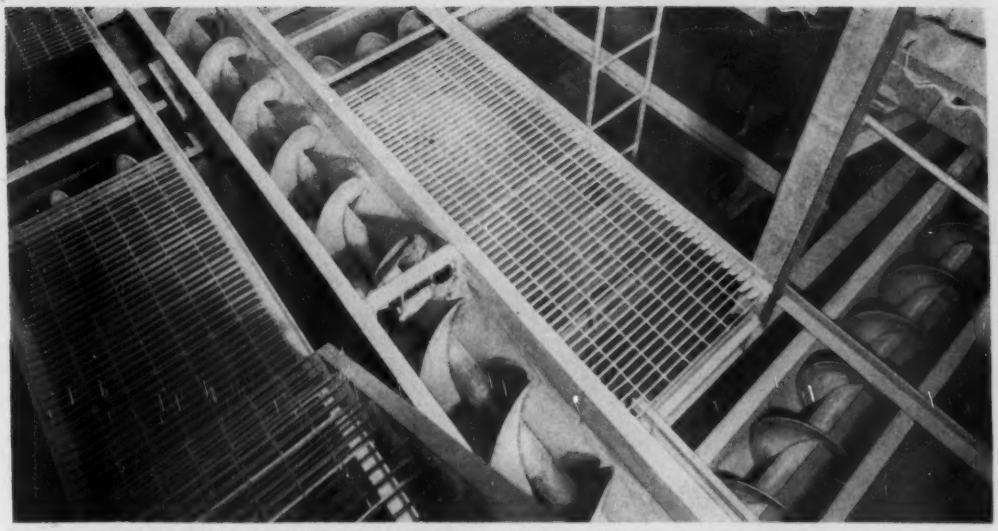


This Link-Belt 12-inch screw conveyor delivers screened mixed material to four 12-inch diameter reversible screw conveyors. These distribute to 16 raw-material storage bins through a series of discharge gates and chutes.

There's no substitute for "total engineering" in screw conveyors

LINK-BELT integrates all components to give you the right screw conveyor for your job

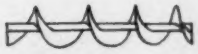
HERE'S how "total engineering" works for you when you buy Link-Belt Screw Conveyors.

First, conveying specialists analyze your problem. Then, Link-Belt's vast experience in design and manufacture is at your command to recommend the screw conveyor—or system of conveyors—for your particular requirements. The right components are then selected from Link-Belt's complete range of types and sizes.

Link-Belt "total engineering" on your screw conveyors is your assurance of efficient design . . . balanced performance.

To benefit from Link-Belt's materials handling experience and engineering service, contact the Link-Belt office near you.

LINK-BELT designs and builds all components

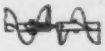


SCREWS—Link-Belt makes a complete range of conveyor screws—Helicoid, Sectional Flight, Cut Flight, Ribbon Flight, Paddle type and other special types for such diverse applications as feeding, conveying, mixing, agitating, stirring, blending, etc.

HANGERS—Available in a variety of styles and mountings, with various bearing materials and steel or cast hanger frames.

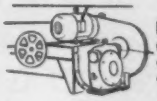
TROUGHS—Link-Belt builds flanged, angle flanged, flared, rectangular, dust-seal, jacketed and drop-bottom types in steel or alloy metals. Variety of connections, supports, covers and clamps offers added design flexibility.

SPOUTS & GATES—Plain discharge spouts can be fixed or detachable. Discharge gates, flat or curved slide, can be hand or rack-and-pinion operated.



SHAFTS & COUPLINGS — Conveyor couplings and end shafts are designed for adequate torsional strength and have jig-drilled coupling bolt holes for accurate alignment

TROUGH ENDS—Steel or alloy metal plate or cast trough ends to match all trough shapes, provide required shaft bearing support and alignment. Seal glands to protect bearings, if required.



DRIVES — Link-Belt designs and builds many forms of drives to suit specific conditions—Enclosed gear, Electrofluid, P.I.V. variable speed, and chain drives of various types.

LINK-BELT

SCREW CONVEYORS

12,884

LINK-BELT COMPANY: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices in Principal Cities.

THIS MORDEN COMBINATION

Saves SPACE • POWER
LABOR • MAINTENANCE

SLUSH-MAKER
STOCK-MAKER

Simplicity keynotes the Morden systems of stock preparation. Experience shows that these systems give outstanding results in terms of efficiency and economy for quality control. A simple basic system is shown in the flow diagram, using...

MORDEN "SLUSH-MAKERS" for completely pulping, deflaking, mixing and pretreating the furnish.

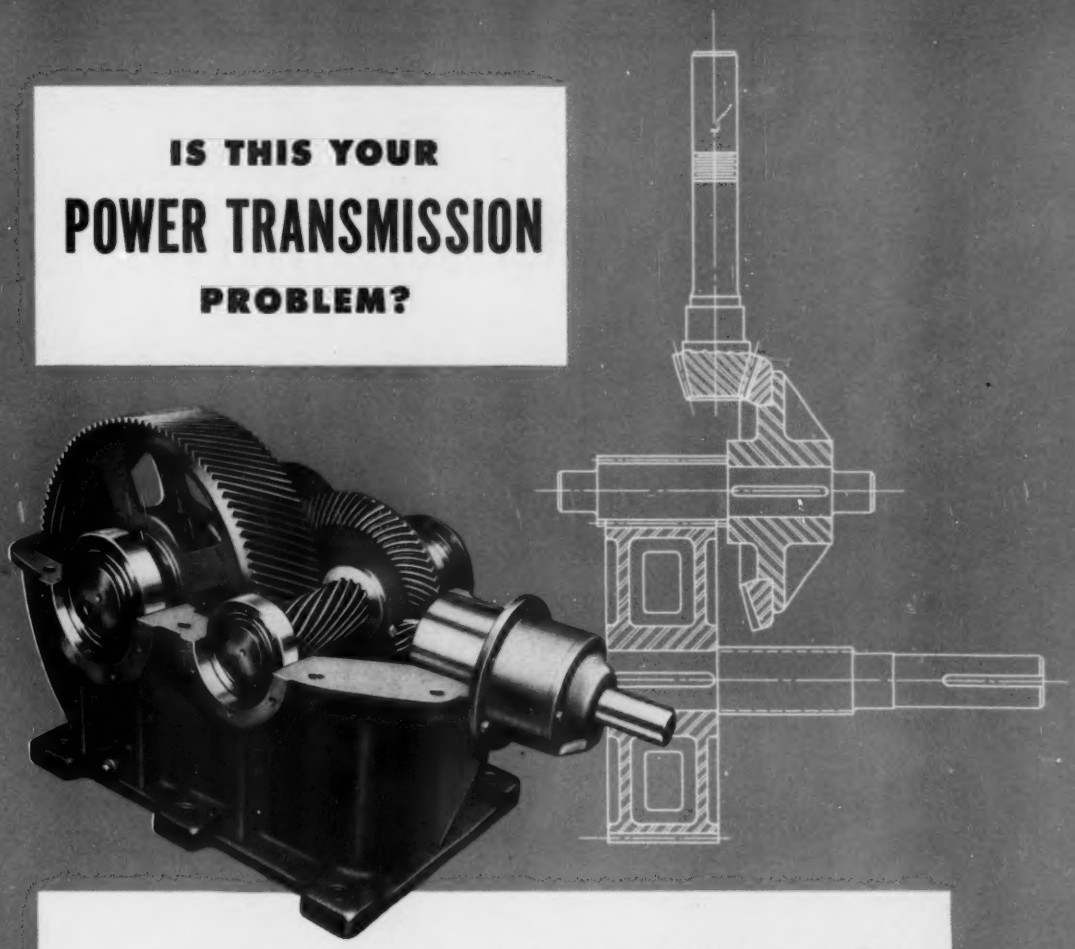
MORDEN "STOCK-MAKERS" for continuously beating and refining the stock ahead of the paper machine.

Many adaptations and elaborations of this system are used to suit various mill requirements. May we help you simplify and improve your preparation system with Mordens? Let us know your requirements.

SLUSH-MAKER
MORDEN
Machines Company
STOCK-MAKER

CORBETT BUILDING
PORTLAND 4, OREGON

IS THIS YOUR POWER TRANSMISSION PROBLEM?



...THEN YOU'LL FIND THERE IS A PACIFIC-WESTERN RIGHT-ANGLE REDUCER TO MEET YOUR NEEDS

If your problem involves the transmission of mechanical power at right angles, be it vertical, with shaft up or down, or horizontal, there is a Pacific-Western right-angle speed reducer *just right* for your needs.

During the past *Fifty Years*, applications in virtually every industry have constantly broadened our standard line of units, plus giving us the know-how to assist you in selecting and applying the correct unit for the job to be done.

Our complete line of right-angle reducer units means that your needs will be met quickly and economically. Consult our nearest plant or representative for further information. If desired, a skilled Pacific-Western application engineer will call at your request.

5230

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Manufacturers of **PACIFIC-WESTERN** Gear Products

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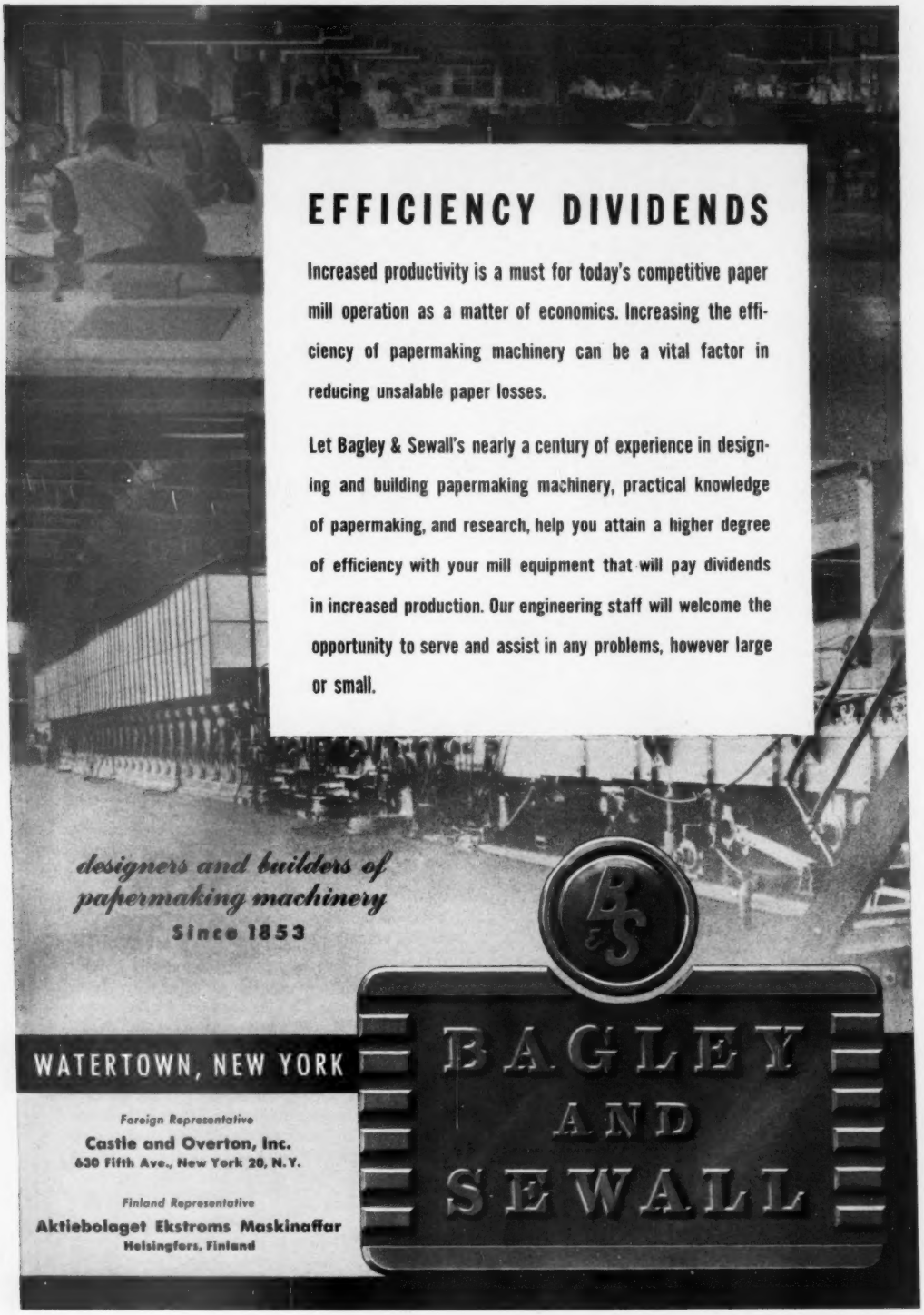
Pacific Gear & Tool Works


EFFICIENCY DIVIDENDS
Increased productivity is a must for today's competitive paper mill operation as a matter of economics. Increasing the efficiency of papermaking machinery can be a vital factor in reducing unsalable paper losses.
Let Bagley & Sewall's nearly a century of experience in designing and building papermaking machinery, practical knowledge of papermaking, and research, help you attain a higher degree of efficiency with your mill equipment that will pay dividends in increased production. Our engineering staff will welcome the opportunity to serve and assist in any problems, however large or small.
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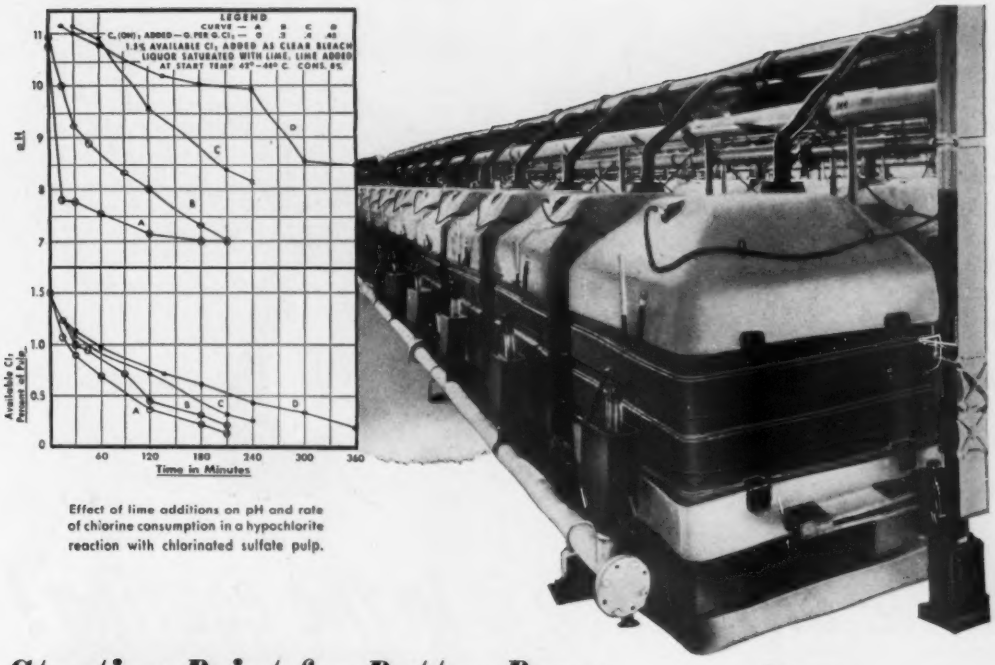

Effect of lime additions on pH and rate of chlorine consumption in a hypochlorite reaction with chlorinated sulfate pulp.

Starting Point for Better Paper

The important bleaching step, at many mills, is handled with high-purity chlorine produced in Hooker "S" Cells at Niagara Falls and Tacoma.

So efficient are the "S" cells, that their widespread use by licensees and by Hooker is responsible for nearly one-half of the chlorine produced in the United States.

When you use Hooker Chlorine you can be sure of uniformity that keeps your bleaching methods constant. What's more, you can depend upon properly conditioned and inspected tank cars to insure trouble-free unloading and handling. Technical Service by Hooker assures you of experienced advice on the efficient, safe handling of chlorine and other Hooker Chemicals.

For copies of interesting and informative papers on bleaching listed here, please write on your business letterhead.

Send for This Helpful Bleaching Data

Bulletin No.

201 Process and Equipment for Making Bleach Liquor for Use Without Settling

211 Chemistry of Bleaching Chemical Wood Pulps

214 What Do We Know About Bleaching?

236 Importance of pH and Catalysts in Bleaching Operations

242 Production and Use of Unsettled Bleach Liquor

243 Procedures and Brightness Grades in Bleaching Sulfate Pulps

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

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SODIUM SULFIDE • SODIUM SULFHYDRATE • SODIUM BENZOATE • CAUSTIC SODA • MURIATIC ACID • PARADICHLOROBENZENE • CHLORINE

the difference is in the coating!

ACCO® Domestic and DAIRYCO® Argentine Caseins assure the smooth, level coat that "moves" printing papers!

Cyanamid-Supervised In All Stages of Production...

ACCO Brand Domestic Casein is noted for its absolute uniformity and unsurpassed quality.

Meeting Every Requirement For An Imported Casein...

DAIRYCO Brand Argentine Casein is a recognized high-quality coating and binding agent.

For Lower Viscosity In Starch-Clay Coating Operations...

AZITE® 900 Liquefier exerts an efficient thinning action on the finished coating color. An excellent performer in machine-coating formulas.

For Effective Control of Pitch Troubles...

ACCOCEL® 741 Pitch Dispersant prevents formation of pitch agglomerates which plug screens, stick paper to press rolls and driers, and make spots in the sheets.

For Pigment Dispersion...

ACCOCEL 741 has proved particularly effective in the dispersion of pigments and fillers. Better retention in the paper and better color in the sheet are realized even when running a color such as carbon black.

For Skilled Technical Assistance...

Call on Cyanamid's Technical Service Staff. Its men are all industry-trained in every phase of paper-making. They will be glad to assist you with any problems involving the use of paper chemicals.

Cyanamid Paper Chemicals: ALWAX® Sizes • WAXINE® Sizes • ACCOCEL® Dispersants • ACCOBRITE® Rosin Size • PAREZ® Resins • Casein • Sulfonated Oils • Fillers • Defoamers • Soda Ash • Caustic Soda • Salt Cake • Acids Clays • AEROSOL® Wetting Agents • CALMICRO® Calcium Carbonate • AZITE® 900 Liquefier • Aluminum Sulfate • Sodium Phospho Aluminate *Trade-mark

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AMERICAN *Cyanamid* COMPANY

INDUSTRIAL CHEMICALS DIVISION DEPT. PP6

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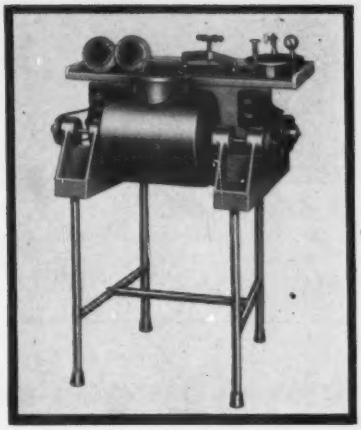
RICE BARTON

DynoPulpers

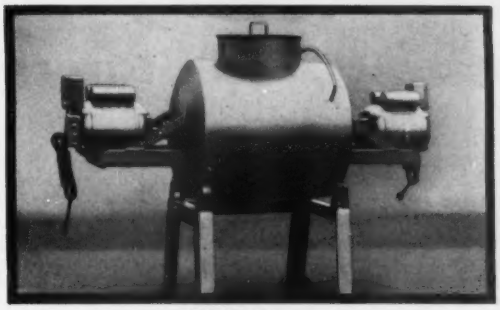
LABORATORY and PILOT MODELS

With them you can:

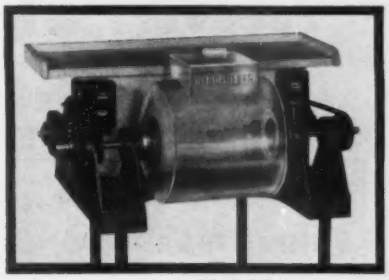
- **Evaluate Waste Paper and Pulp**
- **Recognize Wet Strength**
- **Determine Shrinkage in Waste Paper**
- **Establish Dirt Count on Pulp**
- **Match Colors (two minutes)**
- **Test Mixtures of Stock**



Model 3SP
Laboratory DynoPulper with Stainless Steel Vat. Can be used under pressure. Also available without pressure cover. Capacity 500 grams at 4% consistency.



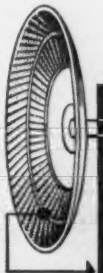
Model 18
Pilot Model DynoPulper. Available in Carbon Steel or Stainless Steel Vat. Capacity 10 lbs. at 4% consistency.



Model 3
Laboratory DynoPulper with Plexiglass Vat. Capacity 500 grams at 4% consistency.

These models available on a lease basis ($50.00 per month). Any charges will be deductible from the purchase price of a new lab model or a commercial machine.

The DynoPeller
is the heart of all DynoMachines. Its concave face is lined with rough, hard carbide particles. As the DynoPeller rotates it causes a suction at its center that pulls the stock toward it. Centrifugal force then causes the stock to flow rapidly over the rough carbide particles under a gentle hydraulic pressure. This effective dynamizing action completely disintegrates the stock . . . separating each fiber from its neighbor while maintaining its original length.



RBR 6-52

RICE BARTON Research Corporation
WORCESTER 1, MASS.

TODAY, conservation of valuable materials from flue gases of black-liquor-fired recovery boilers *is more important* to the kraft paper industry than ever before. That's why Koppers has developed a special *horizontal-flow* electrostatic precipitator for this service.

Here's why you get more profitable recovery with Koppers-Elex electrostatic precipitators!

HERE'S THE RECORD*

Cleaning flue gases on a 250-ton recovery boiler, a Koppers-Elex precipitator bettered the *guaranteed recovery efficiency* of 92.5% by an *extra 2.5%*. This highly satisfactory performance was obtained even though the unit was operating under a *15% overload* . . . and was verified by tests made by the customer.

GUARANTEED recovery at any efficiency you specify! That's one big reason why more and more kraft mill operators specify Koppers-Elex electrostatic precipitators for profitable recovery of valuable sodium sulfate and sodium carbonate from black liquor processes.

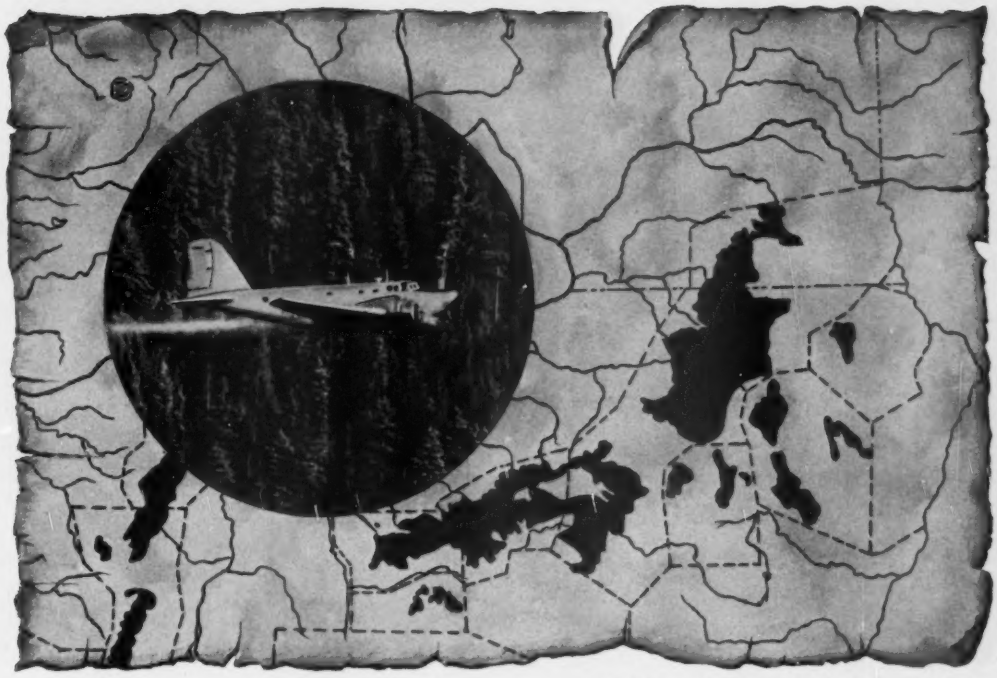
Another big reason is *minimum outage time!* Expensive by-pass systems with loss of materials during inspection and maintenance are *eliminated* by Koppers double chamber design. Maximum recovery is assured because successive collection zones are separately energized and continuous dust removal is provided by a drag scraper which operates on a dry, easy-to-reach *flat* bottom. This is an important feature where chemicals are re-used!

Hundreds of Elex precipitators are in use today all over the world. *Koppers-Elex* electrostatic precipitators are designed, engineered, fabricated and erected *under one contract* by the Koppers Company . . . and each installation comes complete with "packaged" mechanical or vacuum tube power packs. If you have a gas-cleaning problem, write today to: Koppers Company, Inc., Precipitator Dept., 346 Scott St., Baltimore 3, Maryland.

***Guaranteed:** Koppers-Elex precipitators are guaranteed to equal or better (under tests made by your own personnel) any efficiency or residual content you specify.

KOPPERS

Koppers-Elex ELECTROSTATIC PRECIPITATORS



Shaded portions of map show treated areas in Washington and Oregon

Pennsalt reports on the
Spruce Budworm Control Program:

ACTION is saving our Northwestern timber crop

During the past four years, timber owners have been able to nullify a serious spruce budworm infestation on many of their tree farms in the Northwest. But it took a strong plan of *action* to do the job. Aerial spraying . . . plus a low-cost, Pennsalt-produced insecticide which proved 99% effective . . . held the per-acre cost to slightly more than a dollar. The value of the saved timber comes to at least $785 per acre!

This one large-scale control program in the states of Oregon and Washington has conserved more than 40 billion board feet of otherwise doomed timber. But, even more significant, it has proved *for the first time* that an extensive outbreak of at least one type of insect enemy of our timber crops—in at least one section of the country—can be controlled effectively and economically.

No doubt, the same methods will prove equally effective in ridding all our forests of many other types of insects and disease . . . *which annually destroy 30% more timber than forest fires!* Pennsalt technicians will gladly assist on these problems from coast to coast.

In the West:
Pennsylvania Salt Manufacturing Company of Washington, Tacoma, Washington and Portland, Ore.

In the East:
Pennsylvania Salt Manufacturing Company, Philadelphia 7, Penna.

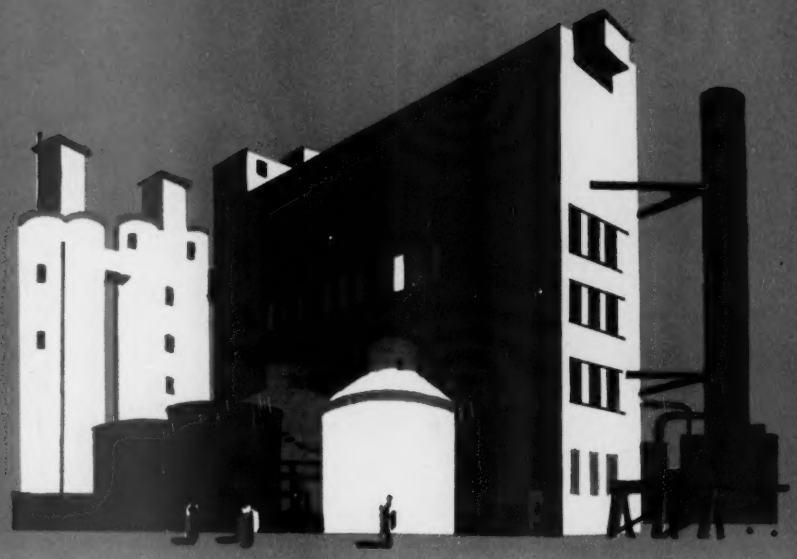
Timber is a crop . . . let's protect it

PRODUCERS OF

LIQUID CHLORINE • CAUSTIC SODA • BLEACHING POWDER • POTASSIUM CHLORATE • SODIUM CHLORATE • ANHYDROUS AMMONIA • PERCHLORON® • SODIUM ARSENITE • SODIUM HYPOCHLORITE • MURIATIC ACID • SULPHURIC ACID • ANHYDROUS HYDROFLUORIC ACID • ACID-PROOF CEMENT • DDT • PENCO FOREST SPRAY.

PROGRESSIVE CHEMISTRY FOR OVER A CENTURY

Pennsalt Chemicals



CONSISTENT EXPANSION

Puget Sound, pioneer pulp mill in the Pacific Northwest, has been expanding consistently ever since World War II. New hydraulic barking equipment, a new industrial alcohol plant also producing *Lignosite*, a new paper board mill . . . and, now, new facilities for the production of bleached pulp. Puget Sound . . . the oldest and newest pulp mill in the West.

PUGET SOUND

PULP AND TIMBER COMPANY

BELLINGHAM • WASHINGTON

Why Your Camachines

stay on the job!

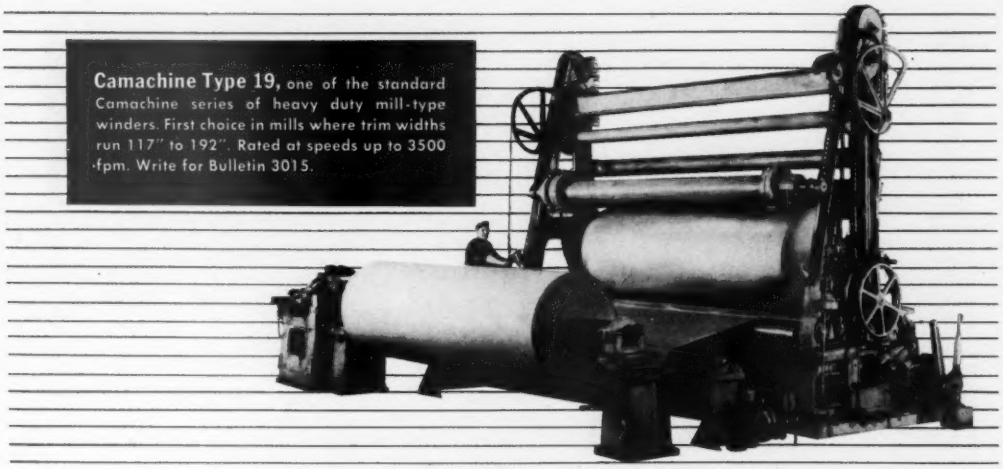
Traditional Camachine dependability is backed by the greatest concentration of experience and ability that you'll find anywhere in the field of slitting, roll winding and constant tension equipment. Your Camachine is designed and built by *specialists* to meet the particular requirements of your plant.

Your Camachine provides for fast change-overs from job to job. You can set up for a new run in a few minutes time, with quick, easy adjustments in strip width settings, threading, speed, tension, roll density and slitter wheel pressure. Optional equipment, operating in smooth, semi-automatic sequence (including rewind shaft injector, hydraulic riding roll lift, roll ejector and hydraulic roll lowering table) makes roll changes easy.

Your basic Camachine design, developed through years of specialization and practical field experience, anticipates normal maintenance requirements by providing for easy accessibility, and interchangeability of parts. Also, with Camachines so predominantly the choice in paper, board and pulp mills everywhere, it follows naturally that Cameron has developed unmatched facilities for handling your normal replacement parts orders.

Your Camachine is built to do a better quality job, to change swiftly from job to job, and to *stay* on the job. For detailed information please request your free copies of Camachine mill-type winder bulletins.

CAMERON MACHINE CO. · 61 Poplar St., Brooklyn 2, N.Y.

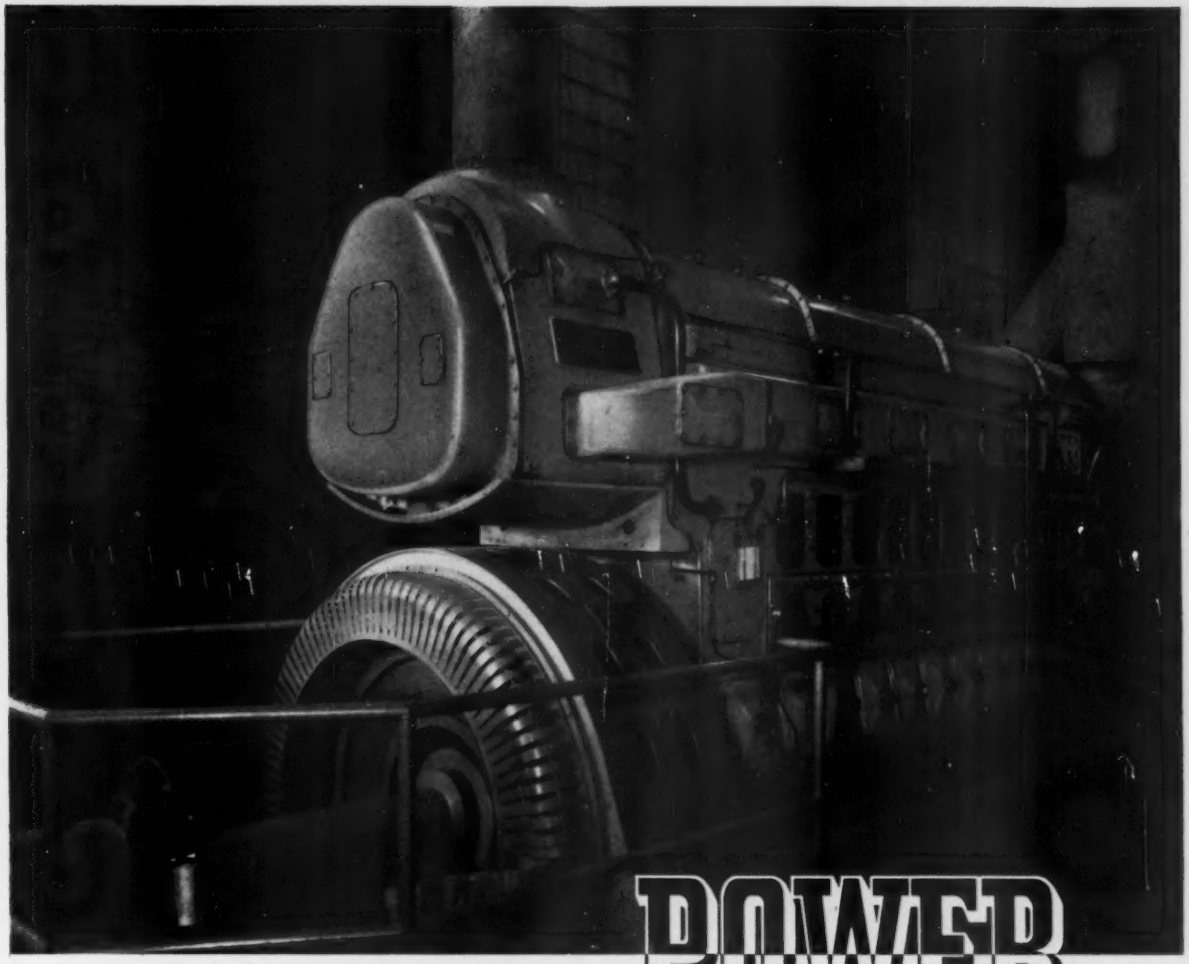


Camachine Type 19, one of the standard Camachine series of heavy duty mill-type winders. First choice in mills where trim widths run 117" to 192". Rated at speeds up to 3500 fpm. Write for Bulletin 3015.

CONSIDER DEPENDABILITY AND YOU'LL WIND UP WITH Camachines®

AA-256

sales representative: pacific coast supply company • public service building, portland 4, ore. • 260 california st., san francisco 19, cal.



FAIRBANKS-MORSE DIESELS FOR POWER

. . . WHEN IT'S NEEDED MOST!

What would be your production loss if purchased power supply should fail . . . or your steam plant could not meet an emergency? That was the situation faced by one pulp and paper mill when water shortages cut hydroelectric power generation.

Installed quickly in the existing powerhouse, the first Fairbanks-Morse Diesel Engine made up the immediate power shortage. A second unit was added to replace the standby steam power. Now, these two units run at near capacity from September through the spring thaw . . . providing reliable power when it's needed most.

And costs? These diesel engines are making a yearly saving of more than $58,000 over past steam costs. The diesel cooling system is also contributing to lower costs by heating plant process water . . . exhaust heat will be used to maintain plant temperatures during winter months.

Fairbanks-Morse Diesel Engines can put your power costs and performance in order—as they have for many other plants, large and small. Write today for engineering assistance on your problem. Fairbanks, Morse & Co., Chicago 5, Ill.

FAIRBANKS-MORSE,

a name worth remembering

DIESEL AND DUAL FUEL ENGINES • DIESEL LOCOMOTIVES • ELECTRICAL MACHINERY
PUMPS • SCALES • RAIL CARS • MAGNETOS • FARM MACHINERY

FOURTH PAPER STATE TO WELCOME SUPERINTENDENTS

DETROIT INDUSTRY MECCA

SUTTON—SINGLETARY

GLEN SUTTON (left), Supt. of Sutherland Paper's Divisions 4 and 7, will head the Detroit Supts. Convention as President. GORDON K. SINGLETARY (right), Plant Manager, Brunswick Pulp & Paper Co., Brunswick, Ga., is due to advance normally from First Vice Pres. to the Presidency—which will mean a 1953 Convention in the South. He went to Brunswick in 1937 as Tour Boss, from Calcasieu Paper Co., in Louisiana, and worked up through the ranks. He is credited with being a leading influence in Brunswick's development—supplying bleached kraft pulp to Scott and Mead mills.

LEFT—SHERATON-CADILLAC Hotel—formerly the Book-Cadillac, will house the Supts. RIGHT—Air view of Detroit, which means "Strait," showing the waterway linking Lake St. Clair and Lake Erie.

The only great city in the world with a woodpulp mill and pulpwood pile right in its midst (Detroit Sulphite Pulp & Paper) will greet some 600 delegates, more or less, to the annual National Convention of the Superintendents Association.

Detroit (French for "Strait"), was founded as a fort by the Indian fighter Cadillac 151 years ago, and now is the Motor City of the world (pop. 1950, 1,838,517; metrop. area, 2,973,019). It was in French hands till 1760, in British hands till 1796, and it will be in the hands of the Superintendents for three days—June 17-19.

Besides being the motor car and furniture state of the nation, Michigan is tops in salt mining (the foundation of Dow, Hooker and other chemical industries), ranks high in dairy products, fruit, breakfast foods, copper, iron, gypsum.

It ranks No. 4 as a papermaking state—after New York, Louisiana, and Wisconsin. Michigan mills made 1,350,011 tons of paper in 1949 (latest year with state figures available).

Still the wild, colorful, hunting and fishing mecca, Northern Michigan is a National Forest land. Norway pine has gone into limbo, along with Michigan's once great lumber industry, but jackpine and other species thrive. In Southern Michigan there are amazing miles and miles of new hardwood forests now growing—basis for new style semi-chemical pulp industries as at American Box Board's expanded Filer City operations (PULP & PAPER story, Dec. 1950, p. 44), at Watervliet (P & P, Nov. 1951, p. 52) and at Otsego (P & P's WORLD REVIEW of 1928, p. 50).

Michigan boasts one of the greatest and most paradoxical paper towns in the world —Kalamazoo—created there without any natural advantages to speak of—simply because it was liked as a site by pioneers like the Milhams, Kindlebergers, Curteniuses, Bryants and Kings. The wood was gone, the water was not important, still they built seven mills there, (28 machines now) and as many more mills are in a few miles around. Kalamazoo is recognized as the Coating Center of the industry. Here are Hercules and American Cyanamid plants, and here is a city built by parchment and named Parchment—created by KVP.

Here is a group of papermakers who concede no peers for spirit and activity; the "Chinese Papermakers of America" were born here, and here is a new paper school at Western Michigan College.

In Michigan mills are six entirely new machines added in recent years. Black-Clawson-made for American Box is the first complete Fourdrinier for 9 pt. in many years. Beloit made the first complete differential drive machine, and first in 20 years for rag and sulfite fine papers for Lee (PULP & PAPER story, Feb. 1952, p. 34). One of the biggest board machines, the Angel, is at Michigan Carton, a mill created by Kellogg's Corn Flakes but now far outgrown it (P & P story, July 1949, p. 40). Detroit Sulphite's new machines and Sutherland's are ultra-modern.

Economic conditions, human engineering, semi-chemical pulping, and subjects on every major phase of this industry will be on the Detroit program at the Sheraton-Cadillac Hotel (formerly Book-Cadillac).

Newsprint Record

Powell River Co. claimed a world newsprint production record April 24 when 1,058 tons of newsprint was produced in 24 hours.

SEE PAGE 3 FOR INDEX
To Articles in This Issue

More Ammonia Mills

The switch to ammonia from calcium base in the sulfite pulp industry seems to be really on its way.

PULP & PAPER learned reliably that in the next several months four more mills in Wisconsin and on the Pacific Coast will switch over. A fifth may follow soon. This would bring the total in the United States on ammonia to 11 mills.

Opening of New Elk Falls News Mill

Official opening in September is being planned for Elk Falls Co.'s new newsprint mill at Duncan Bay, east coast of Vancouver Island. This mill, designed by Howard A. Simons with B. C. Bridge & Dredging Co. as main contractor, will actually be in production in June.

Pacific Mills and Canadian Western Lumber Co. are partners in this $40,000,000 project, which ultimately will include a sulfate and possibly other mills.

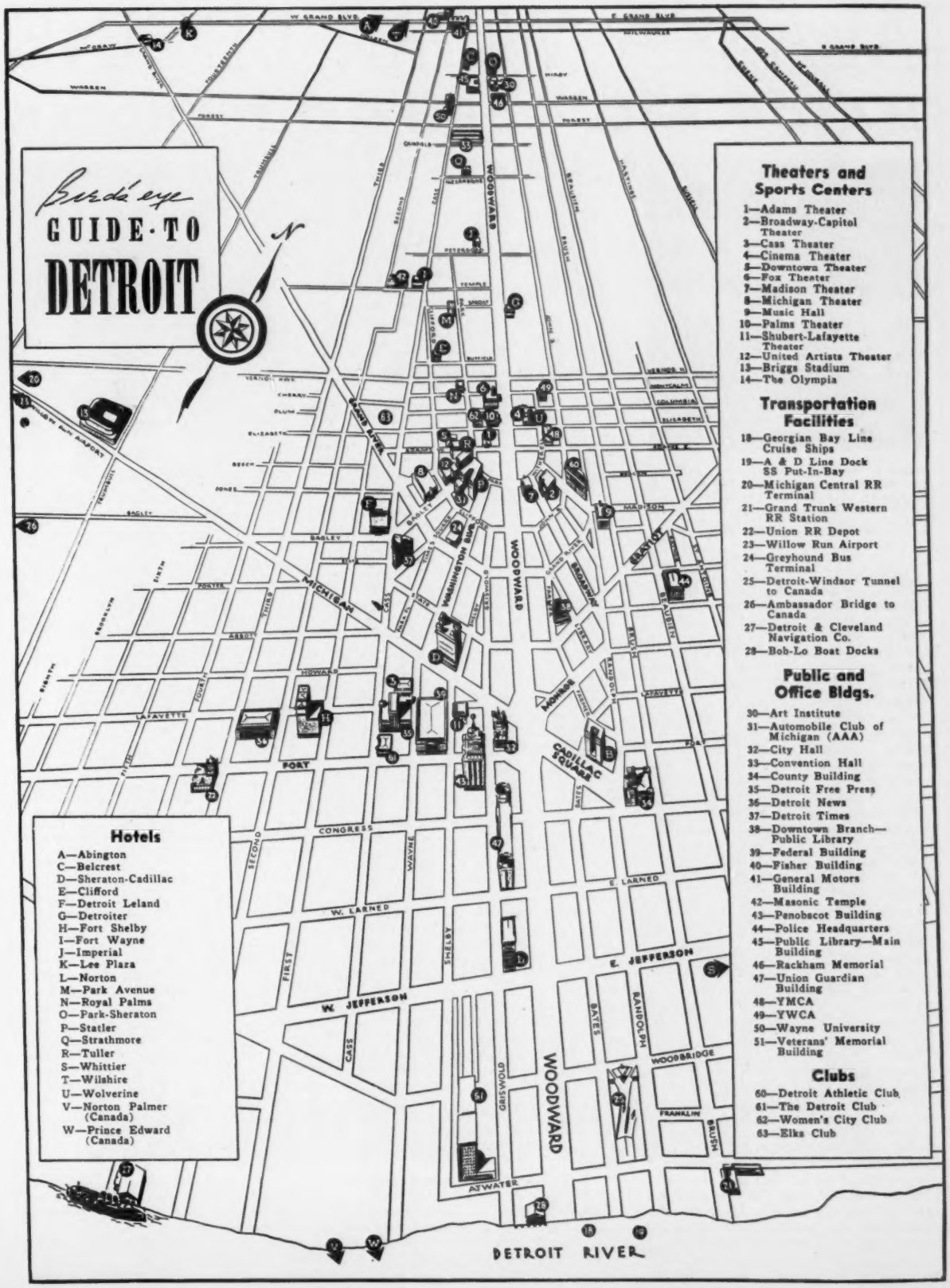
Gardner of Champion Dies

Arthur F. Gardner, superintendent of the machine department, Champion Paper & Fibre Co., Hamilton, O., died suddenly of a heart attack Apr. 2. He had been in ill health for about a year.

Mr. Gardner was 55, was born and raised in Hamilton. He was a leading bowler and sportsman of the city, and veteran of World War I. His widow, Estella, three daughters, four grandchildren, and his father and a brother survive.

Hornbostel, Dundore In Beloit Club

Beloit Iron Works Quarter Century Club inducted 24 new members June 4, including Lloyd Hornbostel, vice president, and M. W. Dundore, production manager. Also in this group were two brothers, James and Dave Simpson, who began work at Beloit June 4, 1926.


Bird's eye
GUIDE·TO
DETROIT
Theaters and Sports Centers
1—Adams Theater
2—Broadway-Capitol Theater
3—Cass Theater
4—Cinema Theater
5—Downtown Theater
6—Fox Theater
7—Madison Theater
8—Michigan Theater
9—Music Hall
10—Palms Theater
11—Shubert-Lafayette Theater
12—United Artists Theater
13—Briggs Stadium
14—The Olympia
Transportation Facilities
18—Georgian Bay Line Cruise Ships
19—A & D Line Dock SS Put-In-Bay
20—Michigan Central RR Terminal
21—Grand Trunk Western RR Station
22—Union RR Depot
23—Willow Run Airport
24—Greyhound Bus Terminal
25—Detroit-Windsor Tunnel to Canada
26—Ambassador Bridge to Canada
27—Detroit & Cleveland Navigation Co.
28—Bob-Lo Boat Docks
Public and Office Bldgs.
30—Art Institute
31—Automobile Club of Michigan (AAA)
32—City Hall
33—Convention Hall
34—County Building
35—Detroit Free Press
36—Detroit News
37—Detroit Times
38—Downtown Branch—Public Library
39—Federal Building
40—Fisher Building
41—General Motors Building
42—Masonic Temple
43—Penobscot Building
44—Police Headquarters
45—Public Library—Main Building
46—Rackham Memorial
47—Union Guardian Building
48—YMCA
49—YWCA
50—Wayne University
51—Veterans' Memorial Building
Clubs
60—Detroit Athletic Club
61—The Detroit Club
62—Women's City Club
63—Elks Club
Hotels
A—Abington
C—Belcrest
D—Sheraton-Cadillac
E—Clifford
F—Detroit Leland
G—Detroiter
H—Fort Shelby
I—Fort Wayne
J—Imperial
K—Lee Plaza
L—Norton
M—Park Avenue
N—Royal Palms
O—Park-Sheraton
P—Statler
Q—Strathmore
R—Tuller
S—Whittier
T—Wilshire
U—Wolverine
V—Norton Palmer (Canada)
W—Prince Edward (Canada)
W. GRAND BLVD
E. GRAND BLVD
WOODWARD
MICHIGAN
FORT
CONGRESS
W. LARNED
E. LARNED
W. JEFFERSON
E. JEFFERSON
CADILLAC SQUARE
GRAND RIVER
MADISON
ATWATER
DETROIT RIVER

ALASKA WORK BEGINS

MAJOR MILL EQUIPMENT CHOSEN

TIMBER IN THESE VIEWS are reserved for Ketchikan Pulp Co. In top view a Forest Ranger is landing his boat at Traitor's Cove in Tongass Forest. Below, many miles of shoreline and timber near Ketchikan.

Orders have been placed for most of the major equipment for the new Ketchikan Pulp Co.'s 300-ton a day, high alpha dissolving woodpulp plant at Ward Cove, Alaska, bringing to that vast territory its first all-year around major industry in its history. Ward Cove is 8 miles north of Ketchikan on a well-protected bay.

Actual construction began last month on the $46,000,000 project which includes a wood preparation plant with hydraulic log barking; a screen room; multi-stage bleach plant; and an extensive magnesia base cooking, recovery and power plant. This plant is to be the second of its kind in the sulfite industry's 100-year history and will generally duplicate the unique structures and equipment and extensive stainless steel piping which is to be seen at the first such plant at Weyerhaeuser operations in Longview, Wash.

Financing arrangements for the company completed by Puget Sound Pulp & Timber Co. and American Viscose Co. consists of sale to institutional investors of $36,000,000 first mortgage bonds; loan of $3,000,000 to Ketchikan Pulp by Amvisco, and issuance of $7,000,000 common stock in equal shares to Puget Pulp and Amvisco, and paid for by them in equal amounts.

Lawson P. Turcotte, president of Puget Pulp, is president of Ketchikan Pulp, and he announced the news first to an enthusiastic meeting of Alaska business leaders in Ketchikan, and press and leaders of Alaska jubilantly spread the news. High tributes were paid to Mr. Turcotte and his company associates for their long years of effort to make this first year-around industry of Alaska a reality—also to Frank Heintzleman, the doughty Alaska regional forester who for 25 years has worked tirelessly, often against great odds and often single-handedly, to bring a pulp industry to the land of the Sourdough and the Cheechako.

Dr. Frank H. Reichel, chairman and president of American Viscose, is chairman of the board of Ketchikan Pulp Co. Lawson P. Turcotte, president and director of Puget Pulp is president and director of Ketchikan. William H. Brown, treasurer, secretary and director of Amvisco, is vice president, treasurer and director of Ketchikan; Robert H. Evans, director of Puget, a Seattle attorney, is vice president, secretary and director of Ketchikan. Other members of the board of Ketchikan Pulp are Fred G. Stevenot, chairman of Puget, John G. Jackson, director and general counsel of Amvisco, Henry H. Bitler, director of Amvisco, and Erik T. Ekholm, vice president of operations of Puget Pulp.

Mr. Ekholm is in overall charge of organization and planning for the pulp operations in Alaska. He is assisted by Eric O. Ericsson, general superintendent at Puget Pulp, and by an augmented engineering and designing staff serving under Harold D. Cavin, chief engineer of Puget Pulp. Mr. Cavin will in due time move part of his staff to Ward Cove.

About 400 will be employed at the mill when built, and some 300 to 400 in logging. The mill is to be completed in June 1954. A 20-year contract with American Viscose assures a longtime major market and a 16-million cord pulptimber allotment from the Forest Service has assured a perpetual supply of quality spruce and hemlock, mainly. Eventually mill capacity is to be increased to 525 tons.

Selection of Equipment

A great deal of unusual equipment, if not unique, even in major items, has been contracted for. A 208-inch wide Fourdrinier wet end and open stack type dryer section is being built by Rice Barton Corp It will have 103 dryers, and the type of construction makes it suitable for either paper or pulp and it would be a versatile machine if any changes in operations, not contemplated now, were indicated. In fact, this is to be the largest machine in the world making dissolving pulp.

A. O. Smith Corp., Milwaukee, is building six 17 x 57 ft. stainless-lined digesters to be field erected and stress relieved.

A multi-stage bleach plant and screening and washing major equipment items such as washers are being made by Improved Paper Machinery Corp., collaborating in engineering with Puget Pulp's own staff. Western Gear Works will supply reducers and Westinghouse is providing motors.

Two General Electric turbo generators of 10,000 kw. each are being provided.

Babcock & Wilcox Co. shares patents for the MgO system with Weyerhaeuser and Howard Smith Mills of Canada and B & W supplies major equipment for this process including two MgO recovery boilers which are of horizontal type instead of vertical as in the kraft industry.

KETCHIKAN PULP CO. will be on an island (Revillagigedo Is., 50 mi. long), as shown on this map. At Prince Rupert is Celanese Corp.'s new pulp mill (Columbia Cellulose) and at Edmonton, its new chemical plant. Next Alaska pulp mill may be at Juneau.

The two MgO will be of 860 lbs. pressure each and temperature, 825 degrees F.

The digester equipment will be by Electric Steel Foundry, Portland, Ore. Evaporators are being designed by James Rubush of Wenatchee, Wash., and will be fabricated by Hydraulic Supply Mfg Co. of Seattle. The stainless steel will be fabricated principally by Washington state firms.

General contract for construction has been let to Ward Cove Builders, a joint undertaking of Howard S. Wright Co. of Seattle and Guy F. Atkinson Co. of San Francisco, with Mr. Cavin in charge of engineering design and construction, assisted by Henry B. Pratt, project engineer for Ketchikan Pulp.

There will be about 16 buildings, ware-

houses and docks at the plant site. The company will build a dam at Lake Connell (Second Lake) and build its own water system. It will generate its own power and steam, with MgO recovery system as a major contributor of fuel for these services.

Housing projects are already reported under way in Ketchikan and the nearby area. One of the few highways in all Alaska connect it with Ketchikan. Ketchikan, where new people moving into the area will locate, has an aggressive policy for expanding power, water, streets and school facilities.

All in all—this will be a memorable summer for Alaska—more important even on a long term, basic outlook than the Gold Rushes, the fishing developments, etc., of past eras.

R. M. True Promoted To GDC Coast Manager

ROBERT M. TRUE, newly appointed Pacific Coast Mgr. for General Dyestuff Corp.

Robert M. True has become West Coast manager for General Dyestuff Corp., with headquarters continuing presently in his longtime offices in the Terminal Sales Bldg., Portland, Ore., according to announcement by J. C. Franklin, executive vice president of GDC, New York.

Mr. True, who went to Portland from his native Michigan in 1938 and has been there ever since, succeeds H. A. Des Marais, who resigned as of May 1 to become general sales manager of Penn Salt Co. of Washington in Tacoma, Wash., as we reported last month. Mr. True's territory has been the states of Oregon and Washington, and now he will be manager for the entire West Coast. He had also been assistant manager for the entire Coast.

Born in Jackson, Mich., he received an M.S.E. degree in chem. engineering at the U. of Michigan. He had experience in several papermills—Kalamazoo Vegetable Parchment Co., Parchment, Mich.; Crocker-McElwain Co. and Chemical Paper Co., Holyoke, Mass., and Blandin Paper Co., Grand Rapids, Minn. He joined GDC in 1937 and went west a year later.

For ten years he served as secretary-treasurer of Pacific Coast TAPPI, which is the largest section of that association in the entire country. He was finally relieved of these duties just this year and given high tribute for his services.

His wife is the former Catherine Buhrer. They were married in 1932 and have a son, Robert, 17, and daughter, Susanne, 15.

LIGHT GAUGE SUPPORTS FOR STOCK LINES

GRAPHICALLY SHOWING how lightly a light gauge (14) Monel stock line needs to be supported is this PULP & PAPER view of lines connected to vibratory screens at Consolidated Paper Co. (900-tons-a-day) board mill at Monroe, Mich. BROWN-HUTCHINSON IRON WORKS, of Detroit, fabricated 6 in., 8 in. and 12 in. Monel piping for this mill, which effectively reduced slime trouble. Note thin vertical suspension for the lightweight lines.

AT RIEGEL-CAROLINA CORP.

Dr. C. E. Hartford, (left) for 11 years with Union Bag and Paper Corp., has recently joined Riegel Carolina Corp., Acme, N. C., as Vice president in charge of the specialty pulp mill operations there. Dr. Hartford was Manager of the Pulp and Paper Division for Union Bag at Savannah, and before that was Chief Chemist for Southern Kraft Division, International Paper, in Florida. J. D. Dailey (right) was promoted from General Superintendent of Riegel's Acme mill to Production Manager. Mr. Dailey has been with Riegel since Sept. 1951, formerly was with Coosa River being a key man in construction and start-up of kraft mills at Coosa River, Ala., Terrance, Ontario, and Red Rock, Ont.—new mills of recent year. Incidentally, J D's initials are just that and stand for no names, probably shouldn't be punctuated.

KIMBERLY-CLARK CHANGES

WILLIAM E. HORNBECK (top left), is Res. Mgr. of Coosa River Newsprint Co., Coos Pines, Ala., participated in mill erection, reports to Arthur E. Wakeman, Exec. V. P. and Gen. Mgr. Mill is operated by K-C and recent changes involved these other men: GEORGE L. CLARKE (top right), became Production Mgr. He formerly was at LongLac subsidiary at Terrace Bay, Ont. Lower row (l to r): DIMP H. WATKINS became Pulp Supt. at Coosa River; GEORGE R. KOONS recalled to Neenah, Wis., headquarters for promotion in Personnel Department, and MAURICE L. HUNT, who succeeded Mr. Koons as Personnel Supt. at Coosa River.

all through the mill

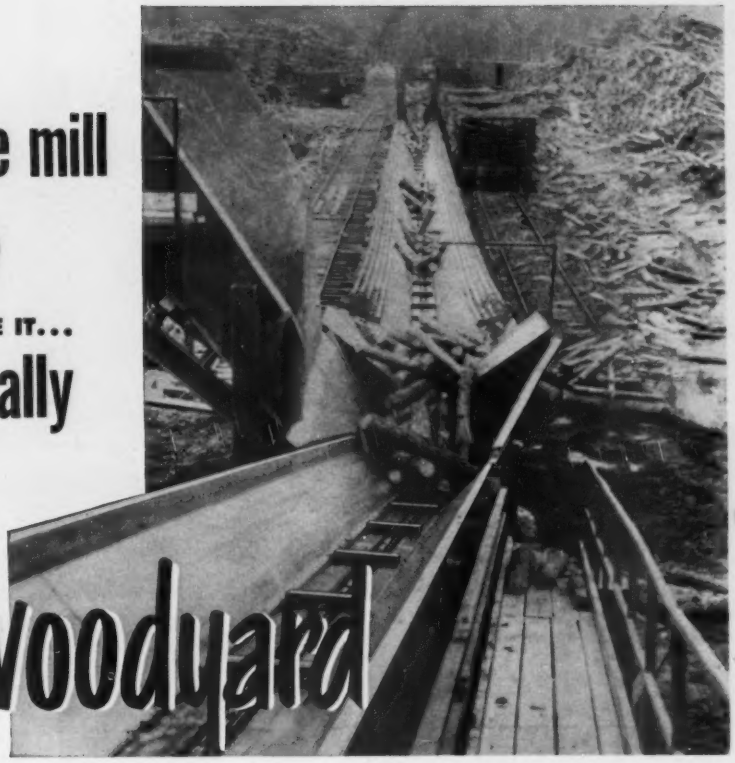
REX

HELPS YOU HANDLE IT...

economically

FOR EXAMPLE...

the woodyard



Here is a fine example of a woodyard conveying system designed by Rex engineers. This one is in a large southern pulp mill.

All the way from pulp wood to paper, Rex can help cut your handling cost. Chain Belt Company's wide pulp and paper mill experience can "engineer out" many of your headaches. Their engineers are constantly alert to the change and progress within the industry. Whether it's by chains, belts, bucket elevators or any combination, Rex men are experts at recommending the one overall plan that is best for your particular operation.

Take the woodyard, for example. Moving "sticks" from storage pile into the mill may call for several different types of chain or other conveying methods. It may call for construction of special troughs, ramps, tracks and other major items. You'll find it well worth while to let the Rex man help you plan the whole operation. His knowledge of your problem, plus his knowledge of the complete Chain Belt line of Chains, Idlers, Conveyors, Elevators and the like, makes him your "right hand" ally in your search for finding the *best* way of doing the job.

Call your nearest Chain Belt branch office or write to Chain Belt Company, 4691 W. Greenfield Ave., Milwaukee 1, Wisconsin.

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NEW WOOD HANDLING

GAYLORD MILL'S IMPROVED PROCESS

THIS NEW PICTURE OF GAYLORD CONTAINER CORP. operations at Bogalusa, La., shows prominently the new Box and Bag Plants. This extensive plant expansion is shown here under a single roof—dominating the foreground of this picture. These plants alone have 14 acres of floor space. Nearly all parts of the Bogalusa operations have been enlarged in recent years.

Gaylord Container Corp., Bogalusa, La., has put into successful operation a new pulpwood handling and preparation system that has been in process of planning and installation over a period of years. It has been designed to fit in with mill expansion plans including diversification into hardwood semi-chemical field with added chipping and digester capacities and flexible handling of hardwood and pine.

The new pulpwood installation will serve exclusively for pine. An older barker and its conveyor is retained principally for hardwoods but susceptible for use in pine barking as the management may desire.

In the new installation, pulpwood is delivered to an inclined mechanical conveyor leading to a Traylor Engineering 11 x 45 ft. barker by means of a 500-foot long flume that is 9-feet deep at beginning but sloping toward the conveyor at 2-inches per 100 feet. The top width is 9-feet and the semi-circular bottom 3-feet wide. The concrete used was a 2500 lb mix. The flume is lined with steel plate of ¼- inch nominal thickness the entire length except where the sloping sides receive the impact of pulpwood, this thickness runs to ½-inch. The steel plating served as a form in pouring.

The first 20 feet of the flume is occupied by a small Corley Mfg. Co. #1 circular sawmill for cutting pulpwood over 16-in. diameter. These pieces are ground-delivered by mobile equipment, swung to the log deck by gasoline-driven winch, wire cable and swinging arm, rolled down to the carriage, and put through the 50-in. diameter circular saw. If necessary, the log is turned for more than one cut. A short conveyor drops the sawn pieces into the pulpwood flume.

It had been thought that the hand-splitting crew, by using the sawmill, could perform its week-long task in one 8-hour day and be shifted to other duties. It didn't work out that way. The sawmill was found to be such a good silvicultural tool by converting to desirable pulpwood large diameter "old field" and "hog" pines worthless to other forest product industries and a detriment to forest re-stocking, that it runs 8-hours daily for the full work week.

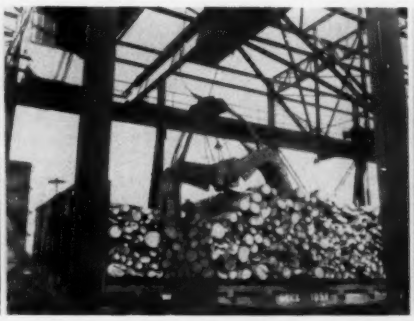
The next upper 120-feet of the flume is used for truck unloading, the vehicles simply backing up to the flume and roll-

VERTREES YOUNG (left), Executive Vice Pres., Gaylord Container Corp., is senior executive of the company at Bogalusa, La., and—himself a former forester (he probably would protest the word "former!")—takes a special interest in production and handling of wood for this mill.

FRANK HEYWARD Jr. (right), Director of Public Relations, who is in Bogalusa, also is concerned greatly with the wood problems, has served recently as Chief, Pulpwood Branch, Pulp, Paper and Paperboard Div., National Production Authority. His discussions at Paper Week on priorities for logging and mill yard equipment and on the wood outlook for South are on pages 74 and 76, our Apr. 1952 issue.

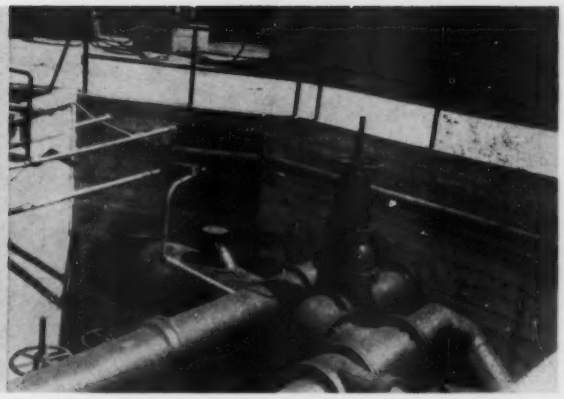
OWEN BUCKET grapple and 7½ ton P & H (HARNISCHFEGER) overhead pulpwood unloading crane at Gaylord mill. One cord grapple was supplanted by half-cord.

THE OWEN BUCKET grapple is unloading railroad car. This is half ton size grapple which the Bogalusa mill decided to use in this operation.



IF PULPWOOD IS SLOW to get underway in the flume, the operator puts the grapple in behind the clogging stack and gets movement started.

STEEL-FACED FLUME for wood at Gaylord Container Corp., Bogalusa, La., passes between two pulpwood unloading rail tracks. Top of flume is 9 ft. wide. In background, steel structure, bearing overhead unloading cranex, is seen.



CRANE COMPANY, Chicago, supplied fittings and valves for the two 6,000 GPM pumps shown here which keep circulation of water in the flume for wood conveying at the Gaylord Container Corp. Crane fittings feature high pressure utility.

ing their loads off. The bark that accumulates along the edge of the flume is pushed into it by a D-2 Caterpillar tractor with a dozer blade. This not only effects a saving in shovel wielding labor but the "cat" can run in and clear the bark all the way up to the inclined mechanical conveyor while the empties are being replaced with loaded pulpwood cars.

There is one railroad track on each side of the flume, passing inside of a 360-foot long steel unloading structure having a 37-foot vertical clearance and measuring 45-feet horizontally between columns. This structure carries a 7½ ton P&H overhead crane with a Owen Bucket grapple that lifts pulpwood from the railroad cars and drops it in the flume. Originally a one-cord capacity grapple was used but this was changed to a ½-cord grapple size so that if the pulpwood showed signs of clogging up the smaller unit, fitting down into the flume, could be dragged behind the load and get it started moving toward the conveyor chain.

Southern Corp., distributors of Charleston, S. C., supplied the grapple equipment made by Owen Bucket Co. of Cleveland, Ohio.

Total capacity of the flume is 20,000 GPM of which about ⅔ is kept in circulation it having been found that 14,000 to 15,000 GPM provides an efficient operating basis. Of this circulation, the major part is effected with two pumps with Crane Co. fittings of 6,000 GPM capacity each to which is added the 6000-6600 GPM discharge from the evaporators, the excess being allowed to run off. In starting up, the flume is first filled, then circulation activated. Bark is cleaned out through use of inclined bar screens made by the mill.

The flume runs with the mill, and exclusively on pine as hardwood goes over a separate installation. Unloading of railroad cars and other incidental unloading work is performed by a crew of five laborers plus the crane operator. The flume has operated at 70-cords per hour, the limit of existing chipping capacity, and it is estimated 100 cords per hour can be handled without difficulty.

Transfer of pulpwood from flume to barkers and thence to chipper is effected by two flights of Link-Belt Co. mechanical conveyor. The first flight, from flume to drum is 98 feet, rising 34 ft. in vertical distance. The second, to the chippers, is 105 feet long and rises 32 feet vertically. All flights are inclined.

While most wood yard conveyor chains are either combination steel and malleable type or forged steel type, the new Gaylord chain was made up of heat-treated high carbon steel by Link-Belt Co. The old installation was made up of combination steel bar and cast center link, a C-132 type. Sometimes the C-132 is a combination steel side bar and malleable iron center link. Some mill yards use the GL-461, a box type of cast malleable iron chain throughout. Other mills use a multi-strand or what is called rivetless chain or forged steel throughout.

The new Gaylord chain is made up of heat treated high carbon steel side bars. These are punched and broached and fitted with case hardened bushings with milled ends, press fitted into the inside links, and case hardened cadmium plated pins with milled ends press fitted into the outside links and then carefully riveted into place.

Outwardly this chain has the same pitch and appearance of the replaced chain but its ultimate strength rating is 120,000 pounds compared to 90,000 pounds for the other. A comparison of other specifications follows.

(*New*) *SS-1469*	*Inches*
Pitch	6
Side bar	2¾ by ⅝
Bushing diameter	2
Pin diameter	1⅛

(*Old*) *C-132*	*Inches*
Pitch	6.05
Side bar	2 by ½
Barrel diameter	1 23/32
Pin diameter	1

A clean-out attachment to keep bark moving is provided, this being a flat plate across the top of the chain extending about 8-inches beyond the center line. At first this plate was ½ inch thick but wore out so rapidly it was replaced by inch thick plates, which have proven more satisfactory. For a time a modified spur attachment flaring out the 8-inches but rising 3-inches above the chain center was tried but it wore out too rapidly and was discontinued.

The attachments on the conveyors are spaced every 6-feet with complete riveting in between. Special cotter pins are used at the sections to facilitate repairs.

LINK-BELT CO. provided this all steel conveyor chain for new Gaylord wood handling system. There are two flights from flume to chipper. In picture at right, wood is shown on the conveyor.

Personals

EASTERN NOTES

JOHN J. JACOBSEN, formerly with Bulkley, Dunton & Co., Inc., announces formation of the John J. Jacobsen Paper Co., Inc., with offices at 342 Madison Ave., New York, to specialize in the sale of publication and printing book paper and groundwood paper specialties.

WALTER D. PIKE, retired employe of Scott Paper, died in South Glens Falls, N. Y., Mar. 12. Mr. Pike had been employed 42 years with International Paper and later with Marinette and Scott, and was personnel assistant at the time of retirement in 1948.

JOHN A. ROBINSON has been named sales manager of the Eastern and Mid-Atlantic regions for the Industrial Division, Minneapolis-Honeywell Regulator Co., it is announced by *W. H. STEINKAMP*, general sales manager.

THOMAS H. STIRLING, for 40 years resident manager of Mechanicville, N. Y., mill of West Virginia Pulp and Paper Co., died at 73 at Loudonville, N. Y., May 2. Mr. Stirling had retired in 1947. With West Virginia he was a member of its board of directors 18 years.

LAWRENCE W. STRATTNER, administrative vice president of West Virginia Pulp & Paper Co., and a deputy administrator of the chemical, rubber and forest products bureau of NPA since Nov. 1, 1951, has been named assistant administrator of NPA and will head this bureau. He succeeds *KENNETH H. KLIPSTEIN* who returned to his post as assistant general manager of the Calco Chemical division of American Cyanamid Co.

JAMES A. PATTERSON has been named comptroller of Eastern Corp., Bangor, Me. Mr. Patterson has been assistant treasurer.

P. H. GLATFELTER, president of the P.H. Glatfelter Co., Spring Grove, Pa., has been elected president of the Pennsylvania Forestry Assn. He succeeds *H. GLEASON MATTOON*, consulting forester.

KARL CLAUSON, secretary-treasurer of the Pulp Consumers Assn., has announced the arrival of a baby daughter. This makes two daughters and two sons for the Clausons. Cigars were passed out during a 60th birthday party for *N. R. "Jim" JOHANESON*, of Cellulose Sales Co., Inc., New York, who parted for Sweden on a business trip a few days later.

FRED W. MORRIS has been named executive assistant, industrial relations, of Hollingsworth & Whitney, Boston, Mass., and *ELMO B. STEVENS*, assistant manager, Northern Mills in charge of personnel.

WILLIAM R. ADAMS has been named vice president in charge of all pulp and paper manufacturing for St. Regis Paper Co. Mr. Adams joined the company in 1937 in North New York.

EDWARD C. REID, former vice president, has been elected president of the American Writing Paper Corp., Holyoke, Mass. He succeeds *THOMAS H. BLODGETT*, who was chairman and president.

JAMES W. TAYLOR, formerly assistant district manager of St. Regis in the Southeast, has been named as head of the bag sales division of Gilman Paper's subsidiary, the Kraft Bag Corp.

Brown Co. Plans Sawmill Operation

Brown Co., Berlin, N. H., announces plans for a sawmill at Berlin to make use of high grade hardwoods received in normal pulpwood operations.

Laurence F. Whittemore, president, said the purpose was to get pulpwood costs down to a competitive figure, and to make more complete and effective utilization of existing Northeast timber supply. Entire production for the first year will be taken by Heywood-Wakefield Co., Gardner, Mass., for furniture, and is expected to run between 4,000,000 and 6,000,000 ft.

MIDDLE WEST NOTES

GILBERT STEVENS, whose brother's election as new president of Marathon Corp. is reported elsewhere, also got into the news recently. Gil Stevens is sales and service representative for Minnesota & Ontario Paper Co., Minneapolis, where he has long been one of their aces in the coating and magazine paper field especially He was married March 8 to Elizabeth Holmberg of Minneapolis and they have their home in suburban Wayzata.

GLENN STEWART, advertising manager of KVP Co., Parchment, Mich., was elected new district governor of Rotary International at a Kalamazoo meeting. This is the top Rotary office for a 15-county area. Mr. Stewart later attended a national Rotary meeting at Lake Placid, N.Y., and international meeting at Mexico City.

BERNARD J. SHIELD, Wisconsin native with 12 years' electrical experience, is new assistant to chief engineer *JIM DAVIDSON* of M & O Co., Minneapolis.

DR. WILLIAM H. McPHERSON has joined the Research Lab of M & O at the Falls, as supervisor of paper research. Dr. McPherson same from Plattsburg, N.Y., worked with I.P. at Glens Falls, N.Y., and Mead Corp., Chillicothe, O., after graduating from Syracuse and the Institute at Appleton with bs, ms and phd's. He was in Puerto Rico on a bagasse pulping.

JOSEPH J. MATULIS has been appointed industrial manager for the Midwest region for Minneapolis-Honeywell Regulator Co., Philadelphia, and *C. G. BEHNKE* has been promoted to industrial manager of the Chicago branch.

HUGH R. (JIM) MOORE, former assistant district attorney for Winnebago County, has joined Bergstrom Paper Co., Neenah, Wis., as an executive.

RALPH E. HOLT has been promoted to junior maintenance engineer, The Gardner Board & Carton Co., Middletown, O., and Lockland, O. Born in Lawrence, Mass., he is a Syracuse U. graduate in engineering.

CORNELIUS HARDEBECK, general supervisor of CM finishing for Champion Paper at Hamilton, O., followed his father in the Champion mill and now he has a son, Don, in machine coating. Two other sons are in the air force.

WALTER J. WILKS, 34 years in this industry, has been promoted from superintendent to manager of Chase Bag Co.'s paper mill at Chagrin Falls, O., and *HARRY S. PEDLEY* has been advanced to superintendent.

MARTIN DOWNS, technical director and others of his staff in the technical departments of Thilmany Pulp & Paper Co., were "written up" in the last issue of the company magazine. In pictures and story were also *T. T. (TEX) COLLINS*, supervisor of Lower Mill lab; *LOYD BROEHM*, instrument service supervisor; *EDWARD LUDKE*, color chemist; *WALTER MOLDA*, quality control supervisor; *MILTON SCHMITT*, development chemist; *ROBERT JIRIKOWIC*, *FRED LUDKE* and *EARL DRIESSEN*, paper testing technicians; *BURNETTE BERTIE*, analytical chemist; *GERRY BREWSTER*, stenographer for the department; and others.

E. G. KERWIN, former exec vice president of Graham Paper, is now in charge of coarse paper sales for Bermingham & Prosser Co., Chicago.

DR. EDWARD G. LOCKE, native of Portland, Ore., is now chief of the division of derived products, U. S. Forest Products Laboratory, Madison, Wis. He was in forest utilization work in Portland for the Service.

ROY C. NEAL, 15 years with KVP, is now ink lab director of that company at Parchment, Mich.

CURT T. UEBEL has been named general sales manager of the new Color Division of United Wallpaper, Inc., Chicago, and *THOMAS A. McCORMICK* has been appointed chief chemist of the Color Division. Mr. McCormick was for 20 years assistant chief chemist of General Dyestuff Corp. lake color department.

CYRUS NOBLE MULL has been appointed chief engineer for Mead Corp. and will direct general engineering in Chillicothe, Ohio. Mr. Mull replaces *GEORGE H. PRINGLE*, who has been named a Mead vice president in charge of white paper operations. Other appointments at Mead announced at the same time include the move of *WALTER HALL* to power engineer under Mr. Mull, and *E. J. FADDEN* to chief project engineer.

Personals

SOUTHERN NOTES

J. C. HAIR, newly named manager of Crossett Paper Mills, Crossett, Ark., was named Papermaker of the Month in a recent Noble & Wood company magazine issue. It recalls he was born and raised in South Carolina and coached prep school athletics for one yeai before going into engineering.

JOHN H. MARTIN, production manager, Sonoco Products Co., Hartsville, S. C., was awarded a handsome trophy for his work in the Boy Scout movement in his area.

STEPHEN C. MAY, headquartering at 585 Sherwood Road NE., Atlanta 5, Ga. (phone Elgin 6620) has been appointed a Southeastern sales agent for Warren Steam Pump Co., Inc., Warren, Mass., manufacturers of centrifugal reciprocating and rotary pumps. His territory is Georgia, South Carolina and parts of Florida, North Carolina and Tennessee. He graduated in 1925 from Georgia Institute of Technology, and recently has been v. p. and sales manager of Blackmer Pump, Grand Rapids, Mich.

D. B. KUHE, who has been named in charge of planning and development at Crossett Paper Mill Div., Crossett Lumber Co., Crossett, Ark. A graduate of Wisconsin U., Mr. Kuhe joined Crossett in 1948 after experience in paper mills in the South, and as manager of the mill at Atenquique, Mexico. Mr. Kuhe had been serving Crossett as assistant manager.

HENRY P. BERRY has been named Southern sales manager for Insul-Mastic Corp. of America, headquarters in New Orleans.

WILL CAIN, U. of Texas graduate, is A. O. Smith Corp.'s new representative in New Orleans, offices at 538 International Trade Mart. Phone, Tulane 4436.

K. O. ELDERKIN, general manager of Bowater Southern Paper Corp., will make headquarters at Greenville, S. C. during early stages of planning and construction.

J. A. LEVAN is now representative of Bauer Bros. Co., Springfield, O., for the South along the Gulf of Mexico, and also southern Georgia. Mr. LeVan's headquarters are in Mobile, Ala.

E. S. REID, formerly research sales manager for *SONOCO PRODUCTS CO.*, Hartsville, S.C., will head up a new Construction Products Division for the Sonoairduct and Sonotube products of the company. He will be assisted by *J. C. FORT*. An office for serving District of Columbia, Maryland, Pennsylvania, New Jersey, New York and New England is at Montclair N.J. *J. A. DURKIN* in charge. Except for this area, Hartsville will handle sales.

Loggers Save Much Timber in South

Prompt salvage of trees infested with Southern pine beetle brought two major outbreaks under control during 1951.

On recommendation of the Texas Forest Service, operators in western Texas salvaged 45 million of 55 million bd. ft. of merchantable loblolly pine that had been killed by the Southern pine beetle. They also salvaged 36,000 of 50,000 cords of infested pulpwood from the 120,000-acre outbreak area.

In the other area—4,600 acres of the Piagah-Croatan National Forest in eastern North Carolina—salvage operations removed 200,000 bd. ft. of infested loblolly, pond, and longleaf pine timber.

Locker Room at KVP

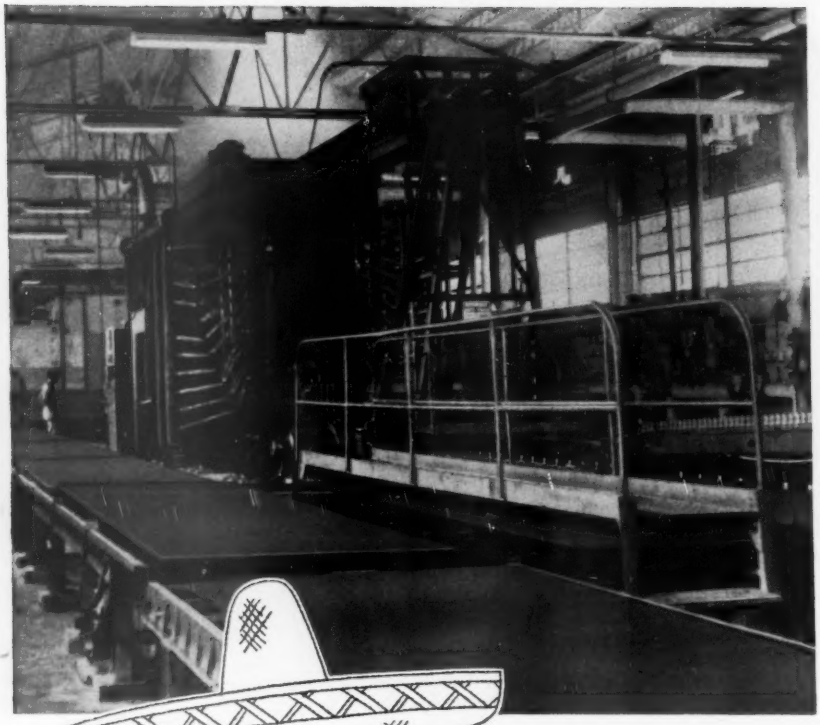
A modern new locker room (68 lockers) for machine room crews at Mill 2 of KVP Co., Parchment, Mich., is being built. It is between the Yankee machine room and the Bagley and Beloit room.

SUCTION ROLLS play an important part in today's high-speed, high-production Beloit paper machines. On the Beloit assembly floor, Charlie Spalding (*center*) points out to Cash Whipple and Paul Pringle (*left*) and Don Simonds (*right*) the design features of this suction couch roll which will help a kraft mill in the South to obtain uniform, efficient removal of water.—*Beloit Iron Works, Beloit, Wisconsin.*

WHEN YOU BUY BELOIT... YOU BUY MORE THAN A MACHINE!

BELOIT

PAPER MACHINERY



Key operation in the plant of Fibracel S.A., Valles, Mexico, is performed by this big Baldwin press. Both the predetermined pressure cycle and temperature control of circulating hot water is completely automatic.

DOWN MEXICO WAY

. . . it's a BALDWIN Press in this first hardboard plant

When Mexico's *first hardboard plant* was in the planning stage, equipment from both Europe and America was carefully studied . . . and a 20-opening, 4′ by 18′ Baldwin press selected for the key job of transforming pulp into hardboard.

Now, after a year of operation, Fibracel S.A. is *mighty happy* with its Baldwin press and the smooth, effortless way it turns out as much as 130,000 square feet of 1/8″ and 3/16″ hardboard every day.

Whether yours is a pioneer plant because of location—or because of an unusual process—you'll find it will pay to contact your Baldwin representative. One of the oldest press manufacturers in America, Baldwin has the experience to design exactly what you need. And it also has the happy faculty of building so sturdily and so precisely that maintenance is kept to a minimum.

If you would like an idea of the variety of presses available through Baldwin, just write for Bulletin 290.

Eddystone Division
Baldwin-Lima-Hamilton Corporation
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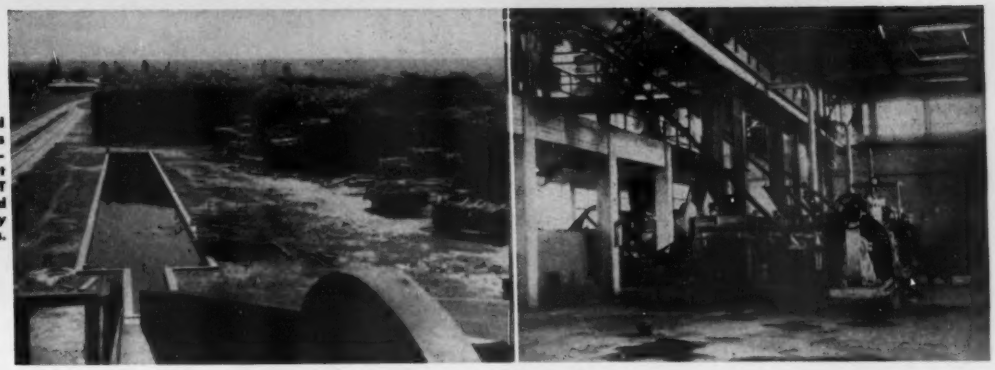
BALDWIN-LIMA-HAMILTON

NEW INDUSTRY FOR MEXICO

HARDWOODS ARE UTILIZED TO MAKE HARDBOARDS

HERE IS NEW INDUSTRY for Mexico—pulp hardboard plant of Fibracel S.A. in San Luis Potosi.



FIBRACEL's wood yard and log wash pond is at left. Link-Belt conveyor takes 8 foot lengths to mill. AT RIGHT: Three Asplund Defibrators are key units in the process.

The first woodpulp hardboard plant to be erected in Mexico has now been in operation more than a year.

The plant, fully up-to-date in equipment and facilities, is owned by Fibracel S.A., with main offices at 95 Paseo de la Reforma, Mexico D.F., and the mill in the City of Valles, state of San Luis Potosi.

The selection of Valles was motivated by various factors, such as dependable and ample wood and fresh water, as well as good transportation. Valles is about half-way between the industrial city of Monterrey, which has two pulp and paper mills, one owned by the second biggest brewery in America (next to Anheuser-Busch), and Mexico City, where there are half a dozen mills. Railway connections to Mexico City and to other principal cities in Mexico are available from Valles. The Pan-American highway, fully paved and an all-weather road, passes through Valles. Tampico—about 90 miles to the east—is linked by an excellent paved highway, recently completed.

The fresh water required is from Rio Valles (tributary of the Rio Panuco), a river of considerable size, and during the dry season it has an ample flow. The country around Valles is densely forested with a variety of semi-tropical and tropical hardwoods. There is an abundance of these wood species, which can be utilized for pulp and hardboard, but thus far has found little use for other industrial purposes.

Fibracel was organized in 1947. Its chairman of the board is Sr. Don Augustin Legorreta, a director of Banco Nacional de Mexico. General manager is Carlos Ziegler; plant manager, Raul Madrazo; superintendent, Jose Antonio Ruiz Duarte; and maintenance chief, H. Mendoza Nava; all of them graduate engineers.

The plant was designed and engineered by American Defibrator Inc., New York, N.Y., and A. B. Defibrator of Stockholm, Sweden. The design of structure was by an architect, Gonzalo Garita, and construction was by Condistri S.A. of Mexico City.

The hardboard plant is capable of a daily output of about 120,000-130,000 square feet of either 1/8" or 1/16" of regular hardboard.

The factory has its own power plant equipped with a Westinghouse 2000-Kw. condenser turbine and a Babcock & Wilcox Co. oil-fired boiler. The turbine is able to supply additional power for expansion.

The effluent from the hardboard process is treated in a 35" "Cyclator" supplied by Infilco Inc., before being released into the river again.

Operation Flow

The Fibracel plant is equipped and operated as follows:

Wood is brought in by truck and placed in rows by manual handling. The wood—eight feet in length—is brought in during the dry season when access to the forests is more easily possible.

From wood yard the logs are brought to the plant on wagons pulled by a tractor. They are stored in a pond where sand and dirt is removed.

The logs go on an inclined Link-Belt drag chain conveyor to an 88" eight-knife Murray Mfg. Co. chipper with V-Belt drive.

Chips go through a swinging screen built by Karlstads Mekaniska Werkstad, Sweden. Oversize chips pass through a 24-inch Murray rechipper.

The chips are carried to the top of two concrete silos by Link-Belt bucket elevator, are discharged at the bottom of the silos and carried upwards by a second Link-Belt bucket elevator to a scraper conveyor which feeds the spouts of three Type 1 Asplund defibrators supplied by American Defibrator Inc., New York, N.Y. Each Asplund defibrator is powered by a 250 HP 600 RPM synchronous motor of Westinghouse make.

The pulp from Asplunds defibrators is blown to a system of cyclones where the stock is diluted to 8-10% consistency, and screening is by 2 Jonsson Bird screens. Secondary refining to bring the stock to a low freeness is carried out in 2 Karlstad Mekaniska Werkstads' refiners, equipped with lava stone tackle of Mexican origin. Refined stock is washed in a 48" x 108" Valley Iron Works pulp thickener.

Stock is stored in 3 semi-cylindrical chests at a consistency of 2.5-3%, the

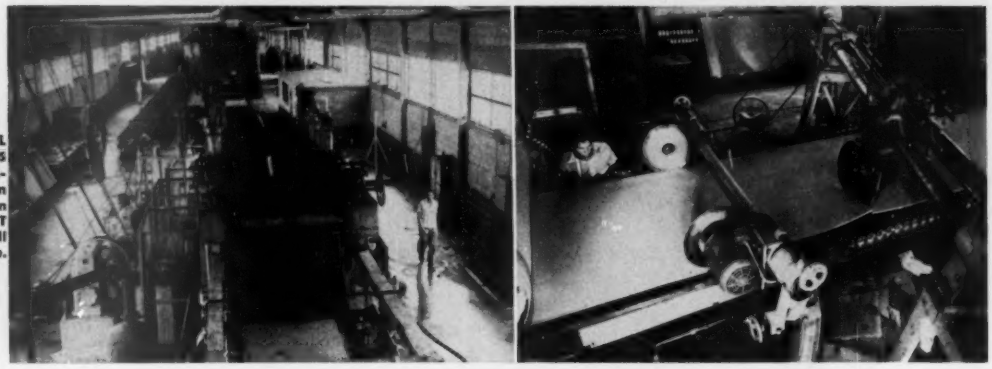
THESE ARE SOME of top officials of Fibracel S.A., one of Mexico's newest industries.

CARLOS ZIEGLER
General Manager

RAUL MADRAZO
Plant Manager

JOSE ANTONIO RUIZ DUARTE
Superintendent

H. MENDOZA NAVA
Maintenance Chief



AT LEFT: SANDY HILL IRON & BRASS WORKS supplied this Fourdrinier machine. Baldwin hydraulic press in background. AT RIGHT is special Sandy Hill cross-cutting machine.

agitators operating at a speed of 8 RPM. Stock is pumped from the stock chests by centrifugal pumps to a sizing box where it is diluted and the consistency controlled. In this box, which is provided with ample agitation, the various sizing agents are added to make board resistant to termite attack, necessary chemicals are added at this point.

Stock pumps and white water pumps are all of Warren Steam Pump Co. manufacture, and are both centrifugal and rotary types.

Sandy Hill Fourdrinier

The sheet formation is carried out on a Fourdrinier machine, built by The Sandy Hill Iron & Brass Works of Hudson Falls, N.Y. The machine is of a modified Soderhamns Verkstader, Sweden, design. The width of wet sheet is somewhat more than 4 ft. to provide a finished board of exactly 4 ft. width.

Stock is introduced to the forming end of the machine through a silicon bronze headbox engineered to regulate the flow of stock to assure a uniform thickness across the wire. A secondary headbox, adjustable along the overhead framing is suspended over the Fourdrinier. This provides a method of applying a stock of a different character or consistency to the sheet already being formed.

A vibrator suspended from the overhead framing between the primary and secondary headbox is also adjustable along the framing and provides additional stock leveling action.

The deckle strap arrangement is built of non-corrosive material, and is suspended and supported on anti-friction bearings at proper intervals to maintain a seal and true edge on the forming sheet.

Suction equipment in the form of two conventional-type flat suction boxes, a Rotabelt and one patented Kamyr suction box assure a high degree of water removal before the presses.

Stock passing over the last suction box enters a nip formed by the top and bottom wires running over a set of calipering rolls. This gives a gradual pressing effect just before the stock enters the nip at the first pneumatically loaded press. Stock is then carried through two more pneumatically loaded presses. Each set of presses is equipped with individual wires.

Panels are provided to enable the operator to control accurately the press roll pressure on both tending and driving side. A special elbow gear arrangement on the first and second press causes the top roll to be operated synchronically with the bottom press roll regardless of the position of the top press roll due to the variable thickness of the sheet.

A cross cutter, built by Sandy Hill, is synchronized with the speed of the machine so that the rotary blade as it cuts across the sheet is traveling at the same forward speed as the sheet. It is fully automatic but it has an auxiliary manual control.

The machine has a mechanical enclosed Sandy Hill gear drive. A variable speed prime mover allows for a variation in machine speed. Sandy Hill-Cleveland type oil-film bearings are used on all indrive shafts and line shafts.

The wetlaps are carried into a loader for the hydraulic press by an automatic plate feeding system designed by A. B. Defibrator. The principle is that the wet sheet, which possesses little rigidity, is loaded on a carrier or transport plate (made of cold rolled steel) and thus carried into the press. The wire cloth required for proper water drainage during the pressing operation is located between the wetlap and the transport plate.

The plate feeding system is fully automatic and the movements of the empty transport plates, the loaded sheets as well as the loading and unloading of the press, is controlled by a series of limit switches and motor brakes. The "brain" controlling all the movements is a control center designed by A. B. Defibrator and built by the Allen Bradley Co.

Final Processing

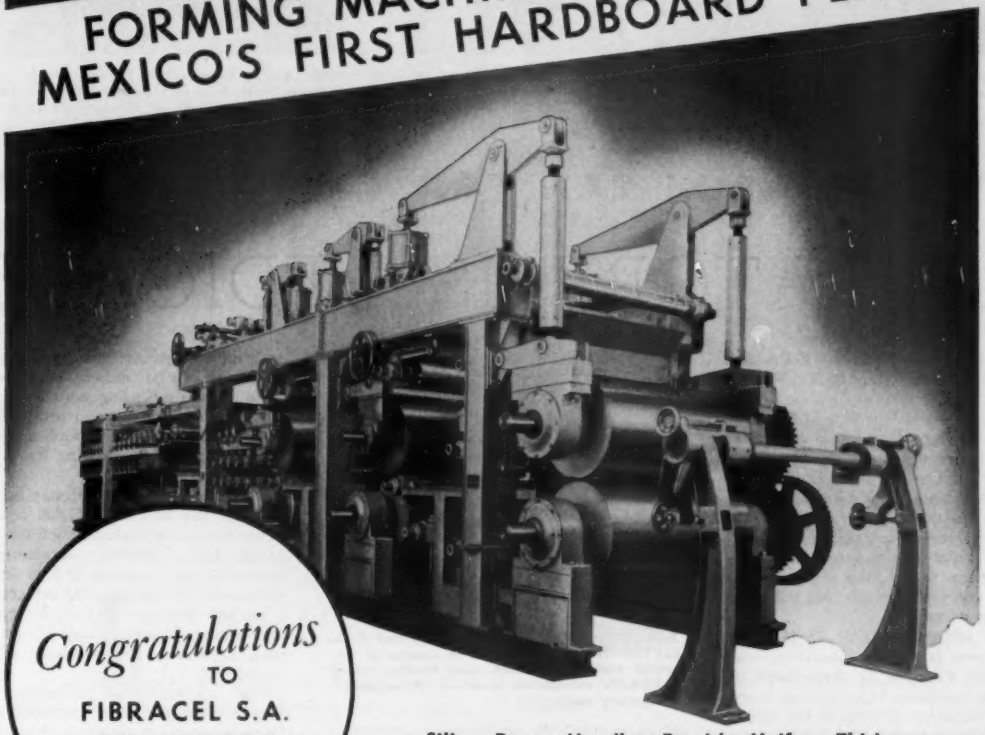
In the hydraulic press, built in 20 openings for 4' x 18' finished board, the wetlaps are subjected to simultaneous high pressure while heated to an elevated temperature by circulating hot water. The press was built by Baldwin Locomotive Works and is equipped with an automatically operated pressure system. The press can produce a total pressure of 4070 tons.

After the pressing operation, during which the wetlaps are transformed into a strong and dense hardboard product, the sheets are loaded in a vertical position into wagons, 100 sheets to each. When fully loaded the wagon is transferred into so-called "heat-treating" chambers of Svenska Flaktfabriken, Sweden, design, where the board is heated to a temperature of

(Continued on Page 84)

Sandy Hill

FORMING MACHINE INSTALLED IN MEXICO'S FIRST HARDBOARD PLANT



Congratulations TO FIBRACEL S.A. ON SUPERB OPERATION

- **Silicon Bronze Headbox Provides Uniform Thickness**
- **Adjustable Vibrator Gives Stock Leveling Action**

The Sandy Hill Iron and Brass Works is proud of the installation of this improved Hardboard machine, product of Sandy Hill's sound engineering and production skill, in the highly successful mill owned and operated by Fibracel S.A., at Valles, Mexico.

Stock is introduced through a silicon bronze headbox specifically engineered to regulate the flow to provide uniform thickness across the wire. A secondary headbox, adjustable along the overhead framing, is suspended over the fourdrinier, providing a method of applying another stock to the sheet already being formed.

An adjustable vibrator is suspended between primary and secondary headbox to give additional stock leveling action. To maintain a seal and true edge on the forming sheet, a non-corrosive rotary deckle strap arrangement is suspended at proper intervals.

Two flat suction boxes, a three-section Rotabelt and a patented Kamyr suction box assure a high degree of water removal from the sheet before the presses.

Many other typical Sandy Hill quality features are included. Let us give you further information pertaining to your individual mill requirements.

The Sandy Hill Iron & Brass Works

Hudson Falls, N.Y.

Machinists and Founders Specializing in Paper and Pulp Mill Machinery

Manufacturers of
Adjustable Cylinder Vats
Cylinder Paper Machines
Kamyr Pulp Grinders
Dandy Roll Drives

Quick Opening Gate Valves
Bertrams Flow Distributors
Bertrams Shakes
Kamyr Stock & Pulp Pumps
Kamyr Vacuum Washers

Nelson Slice
Kamyr Feltless Wet Machines
Selective and Corner Drives
Fourdrinier Paper Machines
Packer Screens

Castings
Kamyr Pulp Bleaching Equipment
Scofield Felt Conditioners
Yankee Fourdrinier Machines
Yankee Cylinder Machines

DR. WENDELL W. MOYER (left) is Director of Research for Crown Zellerbach Corp. Key men of his staff are (continuing left to right): W. M. HEARON and DR. WALTER F. HOLZER, Assistant Directors; DR. KENNETH G. BOOTH, Manager of Laboratories; DR. D. L. SHINN, Chief of Papermaking Section; DR. J. S. BARTON, Chief of Paper Products Development Section; DR. JAS. H. HULL, Chief of Process Development Section—all of Central Research Dept., Camas.

"NEW RESEARCH ERA FOR C-Z" – DR. MOYER

LABORATORY IS DEDICATED

The spotlight in Crown Zellerbach Corp., was focused on a Camas, Wash., hillside on May 1 with dedication of the new Development Laboratory of the Central Research Department and convening of the first directors' meeting ever held outside of San Francisco—a special resolution having been passed to permit the session beyond the confines of California.

The dedication, in which officers and directors participated, presented an opportunity for them to visit the organization's West Linn and Camas mills and tributary Tree Farms, as well.

The new addition, 200 by 75 ft. reinforced concrete and brick laboratory, was dedicated by Pres. J. D. Zellerbach. It incorporates complete experimental manufacturing facilities making it the country's most complete industrial laboratory of the industry. It is one story with an 80 by 25 ft. center section 30 ft. high, with space for tall equipment.

Subsequent to the afternoon dedication, some 200 invited guests attended an evening dinner program at which Dr. Wendell W. Moyer, director of research, Central Technical Department, welcomed the group. A. B. Layton, vice president of research and development, introduced the directors and guests, and Dr. Jesse E. Hobson, director of Stanford Research Institute, Palo Alto, Calif., participated as guest speaker.

Of the Development Laboratory, Dr. Moyer said it "signals a new era of research for Crown Zellerbach Corp. We research men now have the facilities to do new, exciting things. We look forward to attacking major problems of long standing with new weapons. We are in a better position to meet the challenges of competitive research and to advance into fields that will insure the growth and stability of the corporation."

J. D. ZELLERBACH (left), President, and A. B. LAYTON (right), Vice Pres. in charge of Research and Development, were leading Crown Zellerbach officials on hand for Development Laboratory dedication.

The laboratory is designed to span the void between laboratory bench research (which will continue in the existing Research Laboratory) and actual production in the mills. A significant advance in research, it contains a complete experimental pulp and paper mill. Now products or processes can be studied and tested under conditions duplicating actual mill conditions. New processes and products can be economically tried out and most "bugs" eliminated before making test runs in mills.

The mill equipment, occupying about a third of the building's 17,000 square feet of working area, includes facilities for chip preparation, pulping, screening, pulp bleaching and refining and papermaking. Component machines are integrated into a smooth production unit by conveyors and piping. However, any group may be used separately or by-passed when desired.

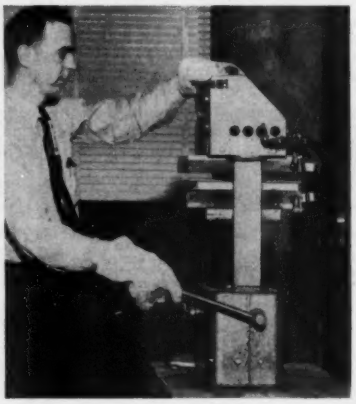
The experimental Alaskan Copper Works stainless steel digester and related equipment indicates the versatility throughout the new laboratory. This "pressure cooker" can be used for almost any conceivable pulping process.

Perhaps the most important unit is the experimental machine which makes paper exactly as the large commercial machines, yet its small size permits close study of performance. The rebuilt oldtime combination 26 in. (trim) cylinder-Fourdrinier machine is some 40 ft. long, operates at 25 to 250 feet per minute.

Of particular interest is a 25 in. wide (trim), 50 ft. long combination coating-laminating-impregnating machine, especially built by John Waldron Corp. and J. O. Ross Engineering for the laboratory, with speeds of 30 to 300 f.p.m. This adaptable unit can be used for reverse roll coating, Microjet coating, gumming, laminating, and saturating. Its versatility exceeds that of any one production machine in the company's converting plants. It will enable the staff to study various converting operations using paper from mills and special stocks from the lab's experimental paper machine.

This particular size coating machine was chosen so consumption of paper and chemicals would not be excessive but still it would produce an experimental product large enough and in sufficient quantity to

REZON—New Plywood Overlay



ONE OF INTERESTING NEW DEVELOPMENTS OF CROWN ZELLERBACH RESEARCH is its tradenamed *REZON*, which is a so-called paper overlay for plywood. It is made of phenol formaldehyde resin and wood fibers and is sold in roll form to plywood plants. It is said to give a better surface and other qualities than natural plywood. This view shows C. J. McKINNIE making an experimental pressing of *REZON* overlay on a sheet of plywood.

Overcome Corrosion, Heat and Abrasion in Your PULP MILL

Lower operating costs, fewer shutdowns and increased production are the rewards for overcoming the three headaches of corrosion, heat and abrasion.

And here is the easy way to do it—turn the problem over to *ESCO*, and let them work it out.

Through 20 years experience in casting stainless and high alloy steels, *ESCO* metallurgists have encountered a multitude of problems in corrosion, heat and abrasion. These are studied individually, and regular or special analyses best suited to the particular application are selected.

ESCO engineering facilities are available when desired for designing equipment of whatever size and character may be wanted. Manufacturing facilities are adequate for any production, and processes of manufacture at all times are under close control of the metallurgical laboratory.

ESCO welcomes consultation with pulp mills on problems of corrosion, heat and abrasion. See the *ESCO* office nearest you or write us direct. Our catalog of stainless and high alloy steels in process equipment is available upon request. Use the coupon.

ESCO STAINLESS AND HIGH ALLOY STEELS

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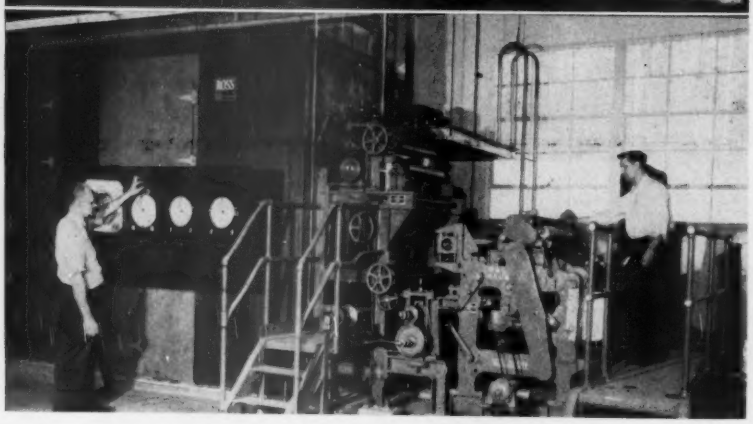


TOP VIEW: NEW DEVELOPMENT LABORATORY OF CROWN ZELLERBACH. It will continue to operate Research Lab, which was brand new just before the war at Camas. This new Lab is on hillside above the still nearly new one—indicating how paper industry has outgrown prewar facilities.

BELOW: A VERSATILE COATING—LAMINATING-IMPREGNATING MACHINE made especially for new Development Lab by John Waldron Corp. with dryer by J. O. Ross Engineering Corp. JAMES BROWN (left) and CHARLES ZORN.

carry out market development, field studies and sales promotion.

Smythe screen, Impco decker, Cameron rewinder and E. D. Jones stainless beater and jordan are other new fine pieces of equipment.

Another third of floor space is available for building pilot plants to engineer processes developed by the research personnel.

A constant temperature-humidity room is provided, as are cold room, work area with services such as outlets for steam, electricity, compressed air, water, propane gas, and, at certain points, sulfur dioxide and chlorine gas.

In the mill yard of the lab is a 20,000-gallon sulfite liquor storage tank to facilitate activities directed at finding commercial uses for waste liquor.

Key personnel of Central Research: Dr. Wendell W. Moyer, director of research; Dr. W. M. Hearon and Dr. Walter F. Holzer, assistant directors of research; Dr. Kenneth G. Booth, manager of laboratories; Dr. J. S. Barton, chief of paper products development section; J. H. Hull, chief of process development section; Dr. D. L. Shinn, chief of papermaking section; Dr. J. D. Wethern, in experimental pulping; H. W. Theller, chief of pulp and paper research section; E. A. Price, chief of specifications section; Ray Austin, research associate on forestry studies.

EQUIPMENT IN NEW LABORATORY

CHIPPER: Carthage 34-in. 10-knife for 4-in. x 5-in. logs. Speed 800 rpm. Drive motor 30 hp.

CHIP SCREEN: Dillon double-deck, 18-in. x 48-in.

CHIP HOIST: Yale and Towne ½ ton electric. Total lift 36 ft.

CHIP SCALES: Fairbanks Morse Meat Beam Scale, 600 lbs. capacity.

CHIP BINS: Three bins of 156 cu. ft. capacity each, or total sufficient for six cooks. Bins are constructed of ¾ in. plywood, faced on each side with REZON overlay to decrease vapor transmission.

DIGESTER: Made by Alaskan Copper Works, Seattle, for almost any method of pulping. Entirely Type 316 stainless steel. Capacity 75 cu. ft. (about 300-350 lbs. of pulp. Maximum working pressure: 200 lbs. at 350° F. Fittings: Quarter-circle strainers at bottom of dome and top of cone, relief strainer, full circle, on neck, spray ring at top of dome. Taylor Instrument Co. automatic temperature controller, and automatic maximum pressure controller. Interchangeable cam clocks for cooks. Two Fischer & Porter Flowrators, one on liquor return line to bottom of digester, other on line to spray ring. Piping is arranged so that cook may be made by direct steaming or indirect heating with forced circulation. Indirect heater is two-pass with 40 sq. ft. heating surface. Top or side relief can be passed through a cooler, or top relief can be vented outside the building when cooking by the kraft process.

ACCUMULATOR: This stainless steel vessel, built by Alaskan Copper Works, can be used for making sulfite cooking liquor, for absorbing relief gases, and for storage of liquor. It is provided with a heating coil, and can be used under pressure for hot-acid cooking.

BLOWPIT: Stainless steel, by Alaskan Copper and is provided with a stainless steel vomit stack. Washed pulp is pumped out and up to the dilution tank.

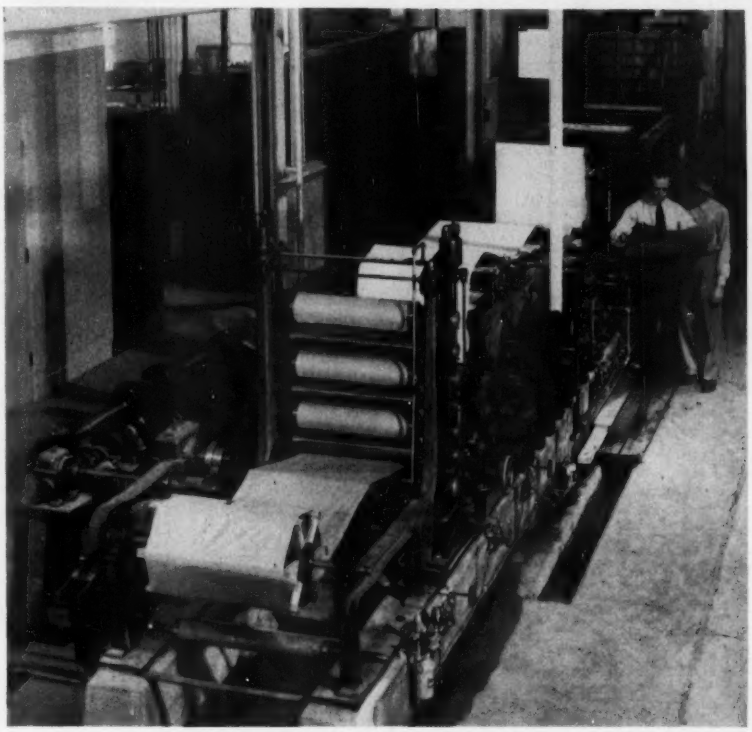
KRAFT LIQUOR TANKS: Two 50 cu. ft. iron tanks, made by Gunderson Bros. Engineering Corp, one for black liquor. Connected by pump and piping to digester.

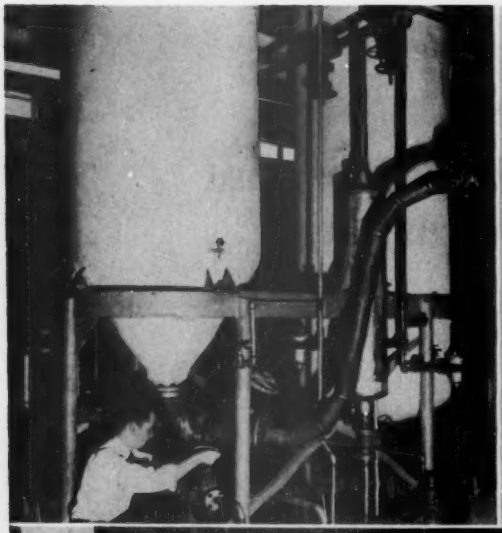
DILUTION TANK: A 1600 gal. iron tank, Sarancoted (Dow) on interior, for diluting pulp to proper consistency for screening. Made by Gunderson Bros., and has a side entering agitator.

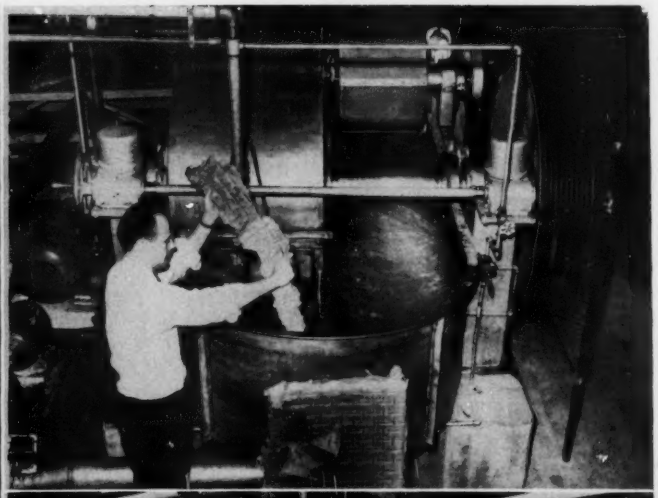
PULP SCREEN: A 14-plate unit, supplied by Ray Smythe, Portland, Ore.

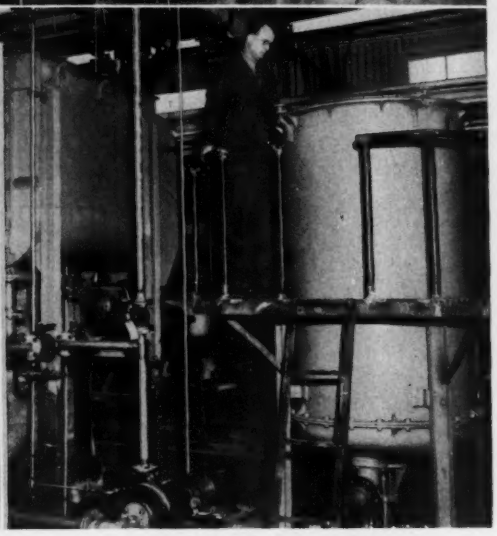
DECKER: Improved Paper Machinery Corp. made unit, identical to commercial deckers ex-

THIS PUSEY & JONES 26 in. trim Cylinder—Fourdrinier machine, which makes paper exactly as larger commercial machines, is major unit of new Lab. REUBEN MARTI (left), is Machine-tender and DALE DARLING (right), Backtender.









TOP LEFT: JAMES WETHERN adjusts valve under 75 cu. ft. Digester made by Alaskan Copper Works, Seattle, for Crown Z's Development Lab in Camas. At right is accumulator which serves as acid plant, acid storage and acid recovery in experiments.

TOP RIGHT: WALLACE FOLLETTE is loading stainless steel E. D. Jones & Sons 250 lb. capacity beater in new Development Laboratory.

LOWER LEFT: FRANK CASKEY inspects 3x3 ft. IMPCO decker in lab which is identical to commercial unit except for width.

LOWER RIGHT: ELMER CLARK, in charge of supplies and equipment for Crown's new Development Lab, looks over chlorinator. Bleaching tank is at left.

cept in width. It has a 3 ft. x 3 ft. mould.

PULP CHESTS: A large concrete chest with five compartments: Two high-density chests with agitators. Two chests with false bottoms for washing bleached pulps. One chest for white water from screening and deckering, which can be pumped back to the blowpit, dilution tank and screen.

CHLORINATOR: By J. H. Day Co. Rubber-lined tank of 420 gal. capacity, with concentric draft tube, and rubber-covered agitator. Handles 100 lbs. of stock at 3% consistency.

BLEACHING TANK: By J. H. Day Co. Stainless Steel, of 280 gal. capacity. 60 in. long, 24 in. wide and 52 in. deep, with 2 oppositely rotating ribbon type spiral agitators. Used for any bleaching procedures except chlorination on pulp batches of 25 to 125 lbs.

BEATER: By E. D. Jones & Sons Co. of Type 304 stainless steel. Capacity 250 lbs. Provided with washer for control of consistency. Drive: 75 hp. motor connected by 10 V-belts.

MIDGET JORDAN: By E. D. Jones & Sons Co. All parts in contact with stock of Type 304 stainless steel, except for filling which is Type 431 stainless. Drive: direct coupled 20 hp. motor.

PAPER MACHINE: By Pusey & Jones Co. (built about 1911), rebuilt on job with entirely new drive. Width: in. trim. Length: Approx. 37 ft. Speed: 10 to 250 fpm. Wet end: Both Fourdrinier and cylinder methods of forming. Presses: First Press: top granite roll and bottom rubber-covered roll. Second (reversing) press: Top brass roll and bottom rubber-covered roll.

(Continued on page 81)

RESEARCHERS IN SCENES in new Crown Z Laboratory (l. to r.): ALAN ROSENFELD, feeding chipper; FRED SCHMIDT, in experimental Pulping Section; RAY AUSTIN, Research Associate on Forest Studies, and WILLIAM WORKS, in a laboratory adjacent to Converting Section.

The sword of CAESAR'S LEGIONS
Strong blades that won an empire

The swords of Caesar's legions were superior weapons. The Roman sword possessed a thick, heavy blade that was effective in delivering either a cutting or thrusting stroke . . . and, it could withstand battering against the armor of the enemy.

The Romans improved their knowledge of metallurgy from the nations they conquered. Roman swords were forged to the most exacting specifications of their time. They represented the best in efficiency and durability.

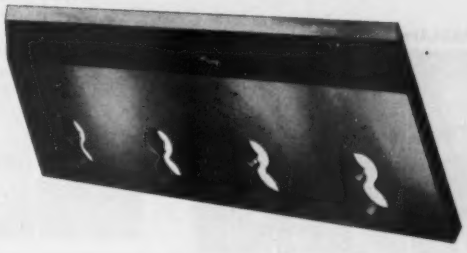
Heppenstall CHIPPER KNIVES
Strong blades that build chip production

Like the blades of ancient Rome, the modern Chipper Knives made by Heppenstall are continually improved through technical development.

Users of Heppenstall Chipper Knives obtain exceptional service as represented by the following advantages:

- MORE HOURS BETWEEN GRINDS
- LESS SAWDUST WASTE
- LESS OVERSIZE CHIPS
- LOWER OVERALL BLADE COST

Your chipper operations can also benefit through Heppenstall Chipper Knives. Make them your standard specification for increased efficiency and lower overall costs—today.



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WHITAKER HEADS MEAD CORP.; MORRIS IS FIRST V. P.

HOWARD E. WHITAKER (left), elected new President of the $100,000,000 Mead Corp., headquarters in Chillicothe, O. He is 48, was born in Woburn, Mass., and has b. and m. degrees from MIT. Joined Mead in 1925, and was Tech. Director and Pulp Supt. at Kingsport, Tenn., on his way up. DONALD F. MORRIS (right), moved up to First Vice Pres. from Operations V. P. He is 50, born in Circleville, O., graduated from Wash. & Jefferson. He started with Mead as lab technician and worked up in sales, procurement and managerial posts.

CHARLES R. VAN DE CARR, Jr. (left), famed throughout this industry as inventor of the Van de Carr Slice, steps down as President of The Mead Corp. at age of 66 but will carry on in "second gear" as Director of Engineering and Chairman of Engineering and Development Committee. Born in Stockport, N. Y., site of his father's Van de Carr Paper Mill, graduate of Rensselaer Poly, he developed and built newsprint machines and mills in Canada, was with Mead interests since 1926. FORD T. SHEPHERD (right), newly elected Vice President in charge of Corporate Relations for Mead, is 48, was born in Belaire, O. He formerly directed Mead public relations. In his career he operated two manufacturing plants, was an independent consultant and was head consultant for the Industrial Div., WMC, in World War II.

LEONARD R. GROWDEN (left), new Vice Pres. in charge of Board Operations for The Mead Corp. Born in Oronogo, Mo., he is 47, graduated from Ohio State and started as Asst. to Div. Mgr. in Chillicothe. He has actually supervised the board mills since 1948. GEORGE H. PRINGLE (right), named Vice Pres. in charge of White Paper Operations. Born in Nova Scotia in 1903, he went to Dalhousie and McGill Us., worked up in Mead engineering to Chief Engineer in 1951. He is National V.P. of TAPPI.

ASPLUND TOURS U. S.

Arne Asplund (left), chairman of the board of A. B. Defibrator, Sweden, with Uno Lowgren (right), head of the associated American firm, American Defibrator Co., New York City. Mr. Asplund has returned to Sweden after a five-weeks' visit of pulp and paper and hardboard plants in this country.

ROBERT GAIR MEN:

From left: HENRY RUST, recently appointed Division Manager of Gair's plant at Bogota, N. J. He formerly was with Gair's Montville, Conn., plant. Center, HUBERT A. DOWNING, named Division Manager of Gair's Fort Niagara Corrugated Box Division at North Tonawanda, N. Y. Right, FRANK E. NEWTON, named Division Manager at Gair's Ohio Corrugated Box Division in Cleveland, O.

IN CANADIAN NEWS

A. R. WEBB (left), Supt. of Vancouver, B. C., Converting Plant of Pacific Mills is this year's Chairman of Pacific Branch of Canadian Technical section and headed up meeting at Harrison Hot Springs May 1-3.

BILL BARCLAY (center), one of best known men in newsprint sales, who recently retired as Chairman of Board, Powell River Sales Co., Vancouver, B.C., after 36 years in industry. He served 21 years with Powell River Co. before entering sales in 1937. He and Mrs. Barclay will continue residence in Vancouver.

D. R. (BERT) BLAIR (right), of Vancouver, who has been appointed Industrial Relations Officer for the organization of British Columbia Pulp and Paper Manufacturers.

IN INDUSTRY NEWS

JIM REYNOLDS (left), new Liaison man for pulp and paper mills for The Dow Chemical Co. Technical Service and Development Dept., out of Midland, Mich. He was formerly in Technical Control work for Scott Paper Co., graduated from Bucknell, and succeeds R. M. Upright, now in Organic Chemicals sales.

THOMAS VIRTUE (center), is new Superintendent of United Board & Carton Corp., Victory Mills Plant, New York. He lives in Schuylerville. He was former Supt. at Pioneer Folding Box in Chicopee, Mass., and before that was with Container Corp.

C. E. CROMWELL (right), now Sales Mgr. of Commercial Div., De Laval Steam Turbine Co., Trenton 2, N. J. He was formerly Manager of the Detroit office and he is a graduate of Rose Polytechnic Institute.

It's 40 Years A "Champion" for J. E. Hall

This is an anniversary year for James E. Hall (in picture), who is general superintendent of paper and paperboard manufacturing for Champion Paper & Fibre Co., Canton, N. C. it was just 40 years ago—back in 1912—that Jim Hall joined the company and was assigned to tossing wood onto the Extract chipper ramps, which is now an extinct job.

Mr. Hall, who lives at 78 Newfound St., Canton, worked his way up through the ranks to the position of supervising the largest white paper manufacturing operation in the Southeast. His only hobby, he says, is "making good paper."

Mr. Hall was chairman of the Southeastern Superintendents Division in 1945. His wife, the former Neva Gabriel, was born in the Piedmont mountain area of North Carolina. A son James, sells paper for Epes-Fitzgerald Paper Co., Raleigh, N. C., and a daughter, Mrs. James Williamson lives in Canton.

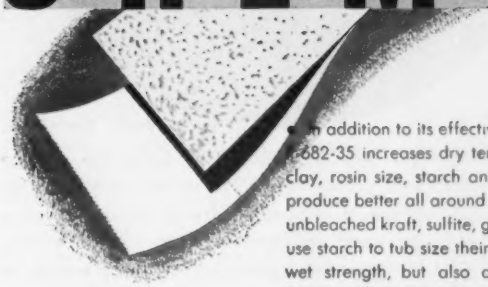
GREAT LAKES PROMOTIONS

APPOINTMENT OF C. A. MICHELS (center) as Vice President in charge of Production and Operations for the Great Lakes Paper Co., Fort William, Ont., has been announced by President W. EARL ROWE at Toronto head office. Mr. Michels subsequently announced appointment of RAY A. WHEATLEY (left) as Development Superintendent and H. A. KELLEY as Mill Superintendent.

REICHHOLD

GREATER WET STRENGTH
IS ONLY ONE
ADVANTAGE OF
BECKAMINE P-682-35

CHEMICALS



In addition to its effectiveness as a wet strength agent, Reichhold BECKAMINE P-682-35 increases dry tensile and Mullen strength and aids in the retention of clay, rosin size, starch and other beater additives . with the result that you produce better all around wet strength papers. It may be applied to bleached or unbleached kraft, sulfite, ground wood, rag or mixtures of these pulps. Mills which use starch to tub size their papers find the addition of this resin not only imparts wet strength, but also aids in laying fuzz and improving scuff resistance. BECKAMINE P-682-35 is a urea-formaldehyde resin of the cationic type and can be diluted infinitely with water without precipitation. For complete information, please write for booklet number 300.

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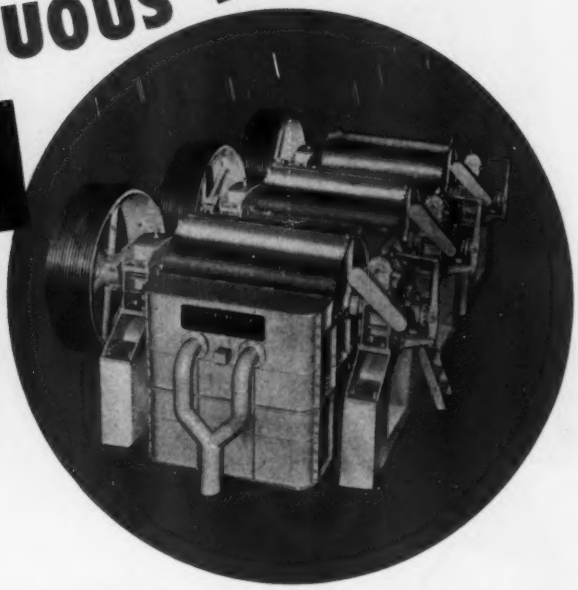
CONTINUOUS PRODUCTION



EXCLUSIVE FEATURES OF THE VICTORY BEATER

1. *Controlled Flow — uniform, positive fibrillation*
2. *Pressurized bedplates*
3. *Absolute control up to 40 tons bedplate pressures*
4. *Centralized bedplates assure 100% roll-bedplate contact*
5. *Highest effective inch cut potential*
6. *Horizontal roll oscillation makes bars self-honing*
7. *Lowest maintenance cost*
8. *Tailored-to-your-plant, low-cost installation*
9. *Spherical, anti-friction roller bearings*
10. *1000 gallons per minute capacity*
11. *Highest quality, high tonnage production*
12. *All-time record for continuous production!*

VICTORY BEATERS are made in two styles: (a) **Single Roll** units for handling batches as small as 500 pounds. (b) **Multi-Roll** units with two, three, or more rolls for treating 100, 150, 200 or more tons per days on a continuous production basis.

A *Controlled Flow* VICTORY BEATER* holds the all-time record for continuous production: 8,730 hours without a shut-down due to mechanical difficulties. That's *two solid years*, day and night — a record unmatched by any similar refining equipment. And the powerful triplex unit is still operating as efficiently as the day it started! *Patents issued and pending.

Just how efficiently is that? Outstandingly so! Paper qualities improved remarkably and power consumption dropped to *35% less than would be required by any other refining method on similar papers.*

If this is the kind of record you want to set in your own plant, learn more about the VICTORY BEATER! All the facts and figures are available for your examination, so write, wire or phone *today* for Booklet **PP 652**

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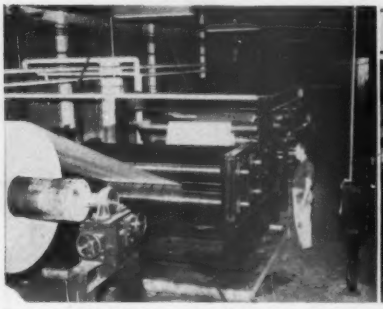
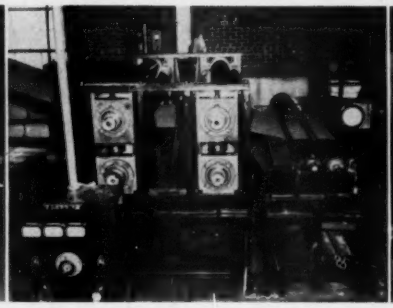
LAMINATION ACHIEVES SPEED AND QUALITY

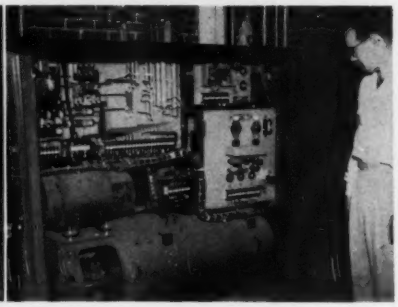
HOW SOUTHERN MILL DID IT



PRATT LAMINATOR at Southern Paperboard Corp., Savannah, Ga., which contributes to improving quality and stepping up production of containerboard at that big mill. S. G. MATHIS is operator standing alongside the machine.



RELIANCE ELECTRIC & ENGINEERING CO. operating controls in left foreground with the laminator beyond them. A Reliance V*S* Package Unit drives this equipment.



RELIANCE CONTROL BOX serving the drive equipment for Southern Paperboard's laminator. KENNETH NELSON, Tour Foreman, is standing alongside opened door of box.

Improved quality of product and increases in production are, generally, the twin objectives of any new installations or operational changes in the mills today.

And, so it was at Southern Paperboard Corp., at Port Wentworth, Georgia, on the Savannah River when the management assigned an area in the substantial warehouse end of the mill for a new laminator.

It pays to laminate, this kraft pulp and paperboard operation in the up-river outskirts of Savannah soon demonstrated to the satisfaction of all concerned.

Henry Pratt Co., Chicago, supplied the laminating machine and the drives and electrical controls for it came from Reliance Electric & Engineering Co., Cleveland, O. Reliance supplied one of its V-S "package" units with motors ranging from 5 to 20 hp. for different sections of the laminator, the 20 hp. drive being on the winder.

By running a 42 lb. sheet on its 220-in. trim Pusey & Jones paper machine and then laminating two thicknesses, the mill is able to get more production than it would if it was making a heavier board.

Other reported advantages:

1. Better "bender" tests. The laminated board now bends without cracking or peeling, according to reports from the various Robert Gair box plants and Fort Wayne Corrugated Paper Co. Robert Gair Co. Inc. (60%) and Fort Wayne (40%) are joint owners of the Port Wentworth mill.

2. Also, a better Mullen test is obtained. It has jumped from about 190 to about 210.

The two thickness of 42 lb. stock, with pickup adhesive, are laminated into a 90 lb. sheet. Staley starch is used. Also some borax.

The Fourdrinier paper machine, which began operation in July 1948, was designed for 450 tons per day. According to a booklet given to delegates of the Savannah engineering conference last fall, the production has been increased to about 525 tons. The paper machine has a secondary inlet. It has 80 paper, three calender and 18 felt driers, with ten primary and four finishing Jones Majestic jordans ahead of it. The machine is right up to the top of its drying capacity.

The laminator has a 90 inch width. It has 86 inch rolls.

Laminated board goes to the carton fabricating plants at Piermont and Brooklyn, N.Y.; Cleveland, O.; Natick, Mass.; Uncasville, Conn.; and Toronto, Ont.; and to container fabricating plants at Portland and Uncasville, Conn.; Cambridge and Holyoke, Mass.; North Tonawanda and Syracuse, N.Y.; Bogota, N.J.; Philadelphia; Cleveland, O.; Richmond and Martinsville, Va., and Toronto, Hamilton and London, Ont.

George Dyke is president of Southern Paperboard (and also of Robt. Gair); C. S. Heustis is manager of containerboard production, also with headquarters in New York. Charles M. McCarthy is plant manager at Port Wentworth. Claude M. Adams is assistant plant manager; Walter Parson, paper superintendent; Bruce Ellen, pulp superintendent, and Milton Ellis, power superintendent. H. W. Borman is plant engineer, and M. W. Thomas Jr., purchasing agent.

C. S. HEUSTIS (left), of New York, is Manager of Containerboard Production for Robert Gair Mills and Plants, and CHARLES M. McCARTHY (right) is Plant Manager at Southern Paperboard subsidiary, Port Wentworth, Ga. What laminating has done for their board production is described in this article.

IN PULPWOOD NEWS

W. J. DAMTOFT (left), Vice Pres. of American Pulpwood Assn., Secy-Treas. of Champion Paper & Fibre Co., Canton, N. C., who has been appointed by Agriculture Secretary Brannan to advise government on control of insect pests in forests. D. C. COTTON (right), Assistant Mgr. of Woodlands, Camp Mfg. Co., Franklin, Va., whose report before APA during Paper Week on varied uses of radio equipment in their woods operations was briefed on page 80, our April issue.

Raycnier To Enlarge Central Research Area

Rayonier Inc. will enlarge the existing laboratory building of the Research Division in Shelton, Wash., Dr. A. N. Parrett, vice president in charge of research and development, announced.

Activities of the Research Division have expanded to the point where additional working area is needed. An addition of 8,700 sq. ft. is planned. Construction will be started soon and the addition will be completed and ready for occupancy by Oct. 1952.

Brunswick Increases Holdings

E. J. Gaynor, president of Brunswick Pulp & Paper Co., Brunswick, Ga., has announced the purchase of 54,000 acres of timberland in Georgia and Florida from the heirs of the late W. C. Rogers. Brunswick, owned fifty-fifty by Mead and Scott, has completed a mill expansion program bringing its pulp capacity to 400 tons per day (see PULP & PAPER, Jan. 1952).

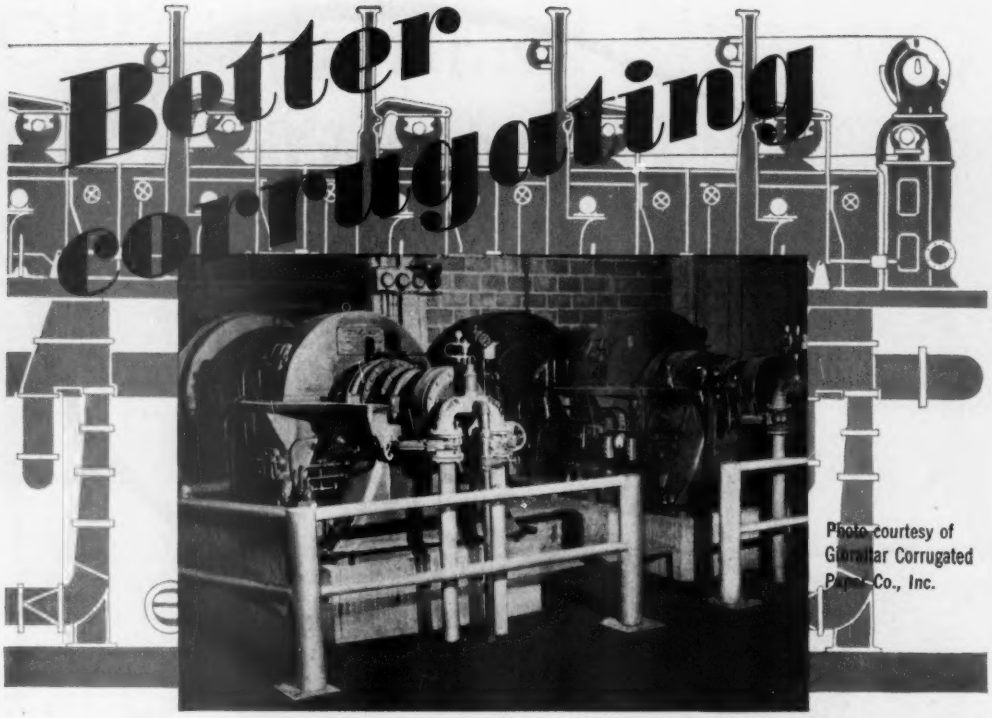


Photo courtesy of Gibraltar Corrugated Paper Co., Inc.

from waste stock

Like the many other Sutherlands in the mixed-paper field, these two at Gibraltar Corrugated Paper Co., Inc., are given credit for helping to make a better quality board. Improved flat crush, plus their power and maintenance savings, explains why leading papermakers are putting more and more stock into Sutherlands.

SUTHERLAND

Designed, Engineered, Serviced

continuous beating systems

***by* SUTHERLAND REFINER CORPORATION**

TRENTON 8, N. J.

STURDY NEW DESIGN BOX HOLDS FIVE SLITTERS

Here's Why SIMONDS SLITTERS Cut Longer . . . they're FORGED!

This new package tells the "inside story" of the unmatched performance of Simonds Forged Slitters on every score-cutting job. Simonds Special Steel (forged for added toughness) plus controlled hardening and grinding to exact specifications, add up to longer runs, with fewer sharpenings and longer cutting life from every Slitter. So, for lowest slitting cost, see your Simonds Distributor about "Red Streak" Forged Slitters . . . available from stock in all standard sizes.

SIMONDS
SAW AND STEEL CO.

"Through research in the next 10 years, more money is to be MADE or SAVED in pulpwood operations of North America than has been made or saved in pulp and paper manufacture in the last 25 years."—Dr. LINCOLN R. THIESMEYER, President of Pulp & Paper Research Institute, Montreal.

MORE ON APA'S TEXAS MEETING

H. E. Brinckerhoff, honored for 13 years service as Secretary-Treas. of the American Pulpwood Assn. by APA's Board of Trustees at a luncheon at Lexington hotel in New York City, April 2.

H. E. Brinckerhoff, for 13 years executive secretary-treasurer of the American Pulpwood Assn. retired to an advisory capacity effective May 1, with formal retirement announced for July. He is to be succeeded by W. S. Bromley who will be acting secretary-treasurer until he assumes the full duties on July 1.

A graduate of the school of forestry at Cornell University, Mr. Brinckerhoff had wide experience in forestry in both U.S. and Canada before becoming secretary-treasurer in 1939. Under his guidance APA instituted a labor training program in 1946; a pulpwood mechanization program headed by Mr. Bromley; and a legislative committee under Karl Swenning, of Hollingsworth & Whitney.

Mr. Bromley has served as forest engineer with the association for three years. He is a graduate of the forestry school of Pennsylvania State College, with a master's degree from Yale Forestry School. Before joining APA, Mr. Bromley served as a consulting forester, managed a 2,000 acre tract of timber in the Lake States, served on the faculty of the forestry school, University of Michigan, and conducted research for two years at Michigan on logging and timber utilization.

While we carried photographs and a story last month explaining what was seen on the field trip which the Southwestern Technical Committee, American Pulpwood Association, made during their spring meeting at Lufkin, Texas, there were several other interesting news sidelights on that meeting to report.

The field trip was made to Southland Paper Mills' long length pulpwood operations and our Southern editor wrote a review of that company's new fast truck loading techniques, contributing to higher per day wood production. He also detailed interesting facts about Southland's wood resources (see page 84, April issue).

Attending the meeting and field trip were 38 pulpwood, lumber, logging and equipment delegates. W. J. Bridges, Hollingsworth & Whitney Co., Mobile, Ala., was elected chairman of the Southwestern committee. He succeeds Earl Porter, International Paper Co. L. E. King, Champion Paper & Fibre Co. was elected vice-chairman. These two men will head the next meeting at Crossett, Ark., Oct. 29 and 30, to be hosted by Crossett Industries.

Long Hauls with Semi-Trailer

In the technical discussion at the hotel, L. E. "Lud" King, Champion Paper & Fibre Co., Huntsville, Texas, described the method employed by his company in long hauls of 5-foot wood with semi-trailers. The description by Mr. King of this method follows.

"Champion Paper & Fibre Co. is receiving wood from six custom-built Lufkin trailers through their wood contractor, J. F. McAdams of Cleveland, Texas.

"These trailers are pretty rugged and weigh 5,500 lbs. empty. When fully loaded the trailer and truck together weigh 56,000 lbs. The truck weighs about 8,000 lbs. They are built to haul a total of 7¾ cords of 5 ft. wood, but are capable of hauling as much as 8¾ cords.

"The length of these trailers is 32' and the height from the ground up is 12'; from the bed up, an average of 7 feet. They are equipped with eight 10:20-12 ply tires, and two hydraulic jacks.

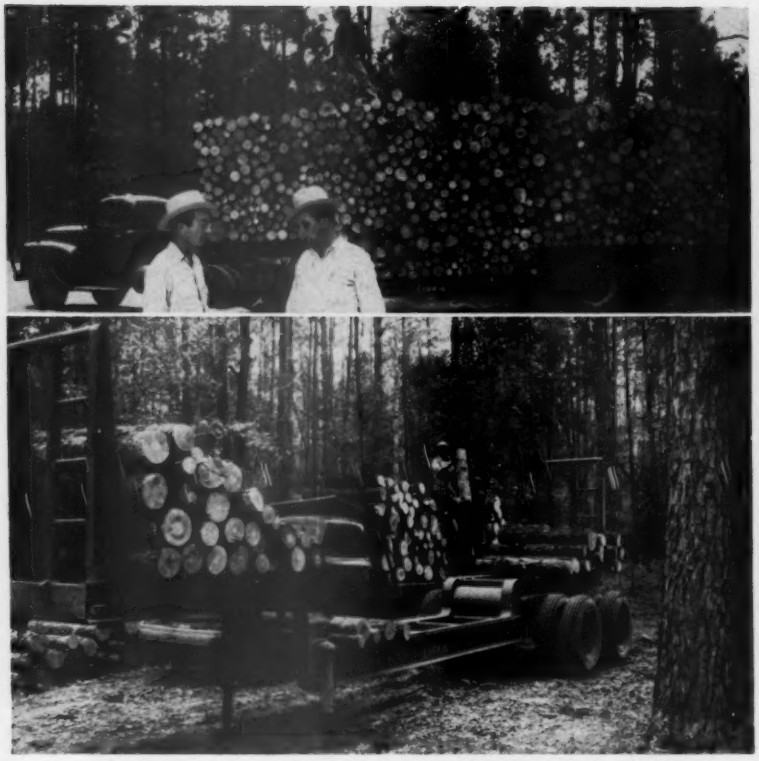
"The trailers are pulled with 3½ ton Dodge trucks. McAdams is operating 3 Lufkin trailers to each truck.

"The maximum operable haul is considered to be a radius of 45 miles to 50 miles from the mill. These specially constructed pulpwood trailers are stationed at concentration points on the tract being cut and regular bob-tail trucks are used to haul the wood to the trailers. In order to keep the trailers moving, it is necessary to use 2 bob-tail trucks to 3 trailers.

"It takes about 2 hours to load one trailer by regular pulpwood trucks. It takes 2½ hours to 3 hours for truck and trailer to make a round trip to the mill

AT LEFT–GROUP IS APA'S BOARD OF TRUSTEES in New York Apr. 2 honored H. E. Brinkerhoff, retiring Secy.-Treas. Front row from left: William J. Bailey, West Virginia Pulp and Paper; W. J. Damtoft, Champion Paper; H. G. Schanche, Brown Co.; E. O. Ehrhart, Armstrong Forest Co., President of APA; H. E. Brinckerhoff; J. E. McCaffrey, International Paper; L. J. Freedman, Penobscot Chemical Fibre Co.; R. R. Drummond, Oxford Paper. 2nd Row—R. E. Canfield, of Wise, Corlett and Canfield; G. W. E. Nicholson, Union Bag; R. W. Lyons, Kimberly-Clark; E. A. Sterling, Johns-Manville; C. O. Brown, International; L. J. Kugelman, International; C. S. Herr, Brown Co.; M. H. Collet, West Virginia; Paul Koenig Glatfelter Co. Third Row—H. V. Hart, St. Regis; G. L. Snowden, Mead; H. R. Palmquist, Marathon; Kendrick Burns, S. D. Warren Co.; F. E. Pearson, Jr., Eastern Pulpwood Co.

SHOWN AT RIGHT: Some of 38 representatives of the pulpwood, lumber and logging equipment industries who attended Southwestern Technical Committee meeting of American Pulpwood Assn. at Lufkin, Texas.



TOP VIEW—J. F. McADAMS, Wood Contractor for Champion Paper & Fibre Co., Huntsville, Texas, discusses procurement problem with one of wood producers, PAUL DIXON. Behind them is one of six custom-built Lufkin trailers used by McAdams for transportation of pulpwood from one of concentration points to Champion mill.

LOWER VIEW—Five-foot pulpwood logs are loaded on one of new Lufkin trailers at woodlands concentration point. Pulpwood is brought to this point on regular bob-tail trucks and then re-loaded on trailer for 40 to 50-mile haul to Champion. Trailers will haul from 7¾ cords to 8¾ cords of wood, and are pulled by 3½ ton Dodge trucks.

operating from a distance of 40 miles to 50 miles.

"The average time needed to unload a trailer at the mill onto a conveyor is 15 minutes. However, it takes approximately 1 hour to unload a trailer onto the storage yard.

"The average total cost for operating the Lufkin trailer is roughly $1.75 per cord, which is broken down as follows:

	Cost in Cents Per Cord
1. Labor, which included one driver.	.60
2. Gas and Oil averages	.75
3. Maintenance costs	.25
4. Registration and Insurance costs .....about	.15

"There are a number of advantages in operating trailers as compared to other methods of transportation. These are:

1. Continuous operation of trucks and labor without worrying about uncertainty of having rack cars.

2. Easy to speed-up operations from 3 to 5 trailers per tractor per day to meet wood shortages which might occur at the mill.

3. Facility of moving time timber.

4. Shorter haul for bob-tail trucks and more loads per day.

5. Wood costs less than that delivered by rail.

6. Overall flexibility.

AMERICAN PULPWOOD ASSN. Technical Committee Meetings

June 11-12 ..... Northeast Section .....
June 17-18 .. Appalachian Section .. Erie, Pa.
September 17-18 Southeast Section (tentative)
October 8-9 Lake States Section (tentative)
October 29-30 Southwest Section Crossett, Ark.
November 12-13 Appalachian Section (tentative)
December 10-11 Northeast Section (tentative)

"The disadvantages in operating trailers are:

1. Uncertainty of continuous operation due to breakdown of equipment.

2. Sometimes there is delay in unloading at the mill wood yard due to congestion.

3. When unable to unload directly onto conveyor at mill time is lost in unloading in storage yard.

4. Highway hazards.

5. Securing capable drivers.

"No difficulty is experienced with top heavy loads on these trailers. A 5-man crew can cut and load a five-day weekly production of 70 cords to 80 cords. Weekly delivery at the Huntsville mill is 450 cords by trailers and 300 cords by bob-tail trucks. This crew used one power saw for bucking and one cross cut saw for felling. Although no spare power saws are readily available. Of the two-man chain saws being used, preference seems to be with the Mall and the McCulloch."

More on Woods Tour

With Major H. A. Maas, of Southland Paper Mills, Inc., acting as guide and host, the Southwestern group visited Southland's long length pulpwood operations about 18 miles from the mill, and later visited the mill yard to observe the handling there.

Here is some further information on the Southland operations:

Southland's procedure is to cut pulpwood thinnings from stands of pine which are managed selectively for sawlogs. Three saw gangs, each working with a one-man Homelite bar-type power saw, fell the timber into lengths not exceeding 24 ft. As reported last month, these are pulled by mules into one cord loads for transportation by an Allis Chalmers HD5 crawler tractor equipped with a Carco winch and a home-made sulky. At the skidway the truck driver, top loader and two hookers load bundles of the long length wood onto a log pole trailer by means of a truck mounted A-frame Jammer. A crotch line with hooks is used to group the wood into bundles. Four trucks, averaging 5-cords per load, are used with three operators for the 18-mile haul to the mill. Daily production for the crew averages 55 to 65 cords.

At the mill yard the entire loads of long length pulpwood are hoisted from trucks by a stationary stiff-leg derrick. These loads are either placed on log deck for slashing or in storage with slings attached for future movement.

L. S. Millwee, of Southland, said they have found in comparing two ton trucks with larger trucks for this hauling that they find a smaller truck can carry a maximum payload and still conform with the highway weight restrictions while a larger truck cannot. They are allowed a maximum gross weight of 38,000 lbs. for highway.

Mr. Millwee said that the average daily production for crews in long length operation was:

6½ cords per man on power saw crew
10 cords per mule for bunching
60 cords per tractor
15 cords per truck
20 cords per power saw

The Southland men said their cut per acre averaged about 3 cords, working improvement cuts over a 12,000 to 15,000 acre tract. This is an area from which 15,000 cords in sawlog tops was salvaged several years ago.

The Southwestern men also inspected a sawlog top pulpwood salvage crew which was following a log operating cutting stands of pine selectively. On this operation Southland uses two trailers designed for use with a wheel mounted frame equipped with a fifth wheel and a tractor hitch arrangement. Hydraulic front end dollies permit coupling of the trailer with either a truck or a tractor.

Two men limb and mark the sawlog tops for an operator who then bucks the wood into 4-foot lengths with a one-man Homelite chain saw equipped with a bow attachment. While one trailer with a load capacity of 3 to 4 cords of 4-foot wood is hauled to the mill, the other is pulled from stump to stump for loading by two men.

NEW PULP SUPPLY FOR SOUTH?

A blend of hardwood "cull" fibers and kraft in a sheet with high tear and bursting strength has proven so successful at Herty Laboratory, Savannah, Ga., that the group running the tests announce plans for an initial pulp mill in Georgia. Other mills are projected for another Georgia area and in northern Florida, and if the three mills are built, they would not make paper, but would supplement the present kraft industry by tapping new sources of pulp.

Design and engineering is planned by the Engineering and Procurement Division of Chemcel Corp., Hoosick Falls, N. Y. Sparking the project is Edward R. Timlowski, of Cleveland, O.; Joseph Glenn Weimer of Montevideo, Uruguay, and New York. His associates are Edward R. Timlowski, of Cleveland, O., and Noble & Wood Machine Co., Hoosick Falls, and Frank Hayes of Noble & Wood. Messrs. Timlowski, Weimer and Hayes are officers and directors of Chemcel Corp., of Cleveland and Hoosick Falls, and the Kinsley Chemical Co. of Cleveland.

Mr. Hayes paid high tribute to Mr. Weimer's "vision and courage" as the project leader. Noble & Wood provided equipment for the tests at Herty.

Dr. Reavis C. Sproull, technical director at Herty, was quoted as saying "the greatest single problem and opportunity in this area is one of waste wood and culled hardwood utilization. By cooperative effort with these firms a process has been evaluated to yield high quality, unbleached pulps, suitable for use in packaging and wrapping applications."

Said Walter L. Hendrix, operations director at Herty; "We've made some promising tests here with black gum and pine. The blend of hardwood and kraft gave us an equal or better sheet than kraft alone." A "gentle" cook under low pressure is used.

Up to now Southern hardwoods have been used alone, only, or as a "hidden additive" to stronger fibers, the sponsors explained. If successful, the new process would diminish the drain on pine stands in the South by adding hardwood culls use in large volume.

Selected as our prize story for this month for this Machinetender Munchausen stories column is one which has been contributed by a reader in Canada. He is F. P. Hughes of KVP Ltd., pulp and paper operations of Espanola, Ont.

We are pleased to send him our customary honorarium of $5 for having his story selected. If you know any tall stories about mills or pulp and paper making, send them in by letter or in memorandum form—yours may be selected for future issues.

Here follows Mr. Hughes' story about how a mill which he recalls, with a most impressive name, solved a quality control problem.

When I first came over to teach you Colonials how to make paper, I worked for a short time with the Spruce, North America, and Forest Union Pulp & Paper Co. This company, you will recall, has extensive timber limits on Ellesmere Island and freezes its pulpwood into natural icebergs, puts a boom around the berg when it gets to the gulf stream, collecting the wood as the berg melts. The wood is then towed round Africa and through the Pacific Ocean to its paper mill in Keewatin, to avoid the detour through the Panama Canal. However, that is by the way. They had a quality control problem when I was there, and, since it might prove interesting to others, I kept the correspondence on the subject and offer it for publication here.

Sales Dept. SNAFU Pulp & Paper Co. to Papermill:

Customers are complaining that the paper supplied lately is terrible. Its strength is entirely too low, and it tears very easily and our water repellent is like blotting paper. Do something about it.

Papermill to Manager, SNAFU P & P Co.:

Regarding complaint re paper quality, careful investigation here shows nothing wrong. The fault lies in the stock provided. Suggest you contact beater room.

Beaterman to Manager, SNAFU P & P Co.:

The stock we send to the paper mill is the absolute best that we can make in the circumstances. We are working our hardest to give them decent stock, but you cannot make good stock out of bad pulp. Bad pulp has always been our trouble here, when it hasn't been something wrong with the paper machines.

Pulpmill Super. to Manager, SNAFU P & P Co.:

I quite agree that the pulp supplied is not as good as it was in the old days. However, this is mainly due to the very poor quality of the chips supplied. The fault lies definitely in the woodroom.

Woodroom foreman to Manager, SNAFU P & P Co.:

Our chippers are as well maintained as they can possibly be. If we had another 20 or so men to form a sorting crew, it is possible that we might be able to sort out the poor logs from the good. Either that or the woods department should see to it that the logs are sorted better.

Woods Dept. to Manager, SNAFU P & P Co.:

Regarding your complain. The fault of the poor quality logs being supplied this spring has been finally traced to the men's axes. These are not properly sharpened due to the files supplied being of poor quality. We are contacting the files suppliers to see what can be done about it.

Sales Dept., Fragile Files Inc. to File Foundry.:

Customers are complaining that the files supplied are of extremely poor quality, being rusty and blunt. Please investigate this.

File Foundry to President, Fragile Files Inc.:

There has been no change in the quality of files made here since the firm started up in 1886. Suggest that the packaging may be the trouble.

Packaging & Despatch Foreman to President, Fragile Files Inc.:

We have now investigated the trouble to which you drew our attention. We have to report that the fault lies in the wrapping paper which we use to protect our files. Its strength is entirely too low, it tears very easily, and it allows water to soak through, which rusts the files. We are getting in touch with our paper suppliers, the SNAFU P & P Co. and will ask them to do something about it. . . .

ST. JOE WOODLANDS division officials (l to r): ROBT. C. BRENT, Jr., Mgr.; H. G. CONRAD, Asst. Mgr., JOHN BEALL, Asst. in Charge of Wood Procurement.

St. Joe Officials Are Promoted

Recognition of services of five top men at St. Joe Paper Co., Port St. Joe, Fla., has been extended by the management. The move, announced by Roger L. Main, company president, is preparatory to stepping up of paper mill production from 400 to 700 tons daily in the fall.

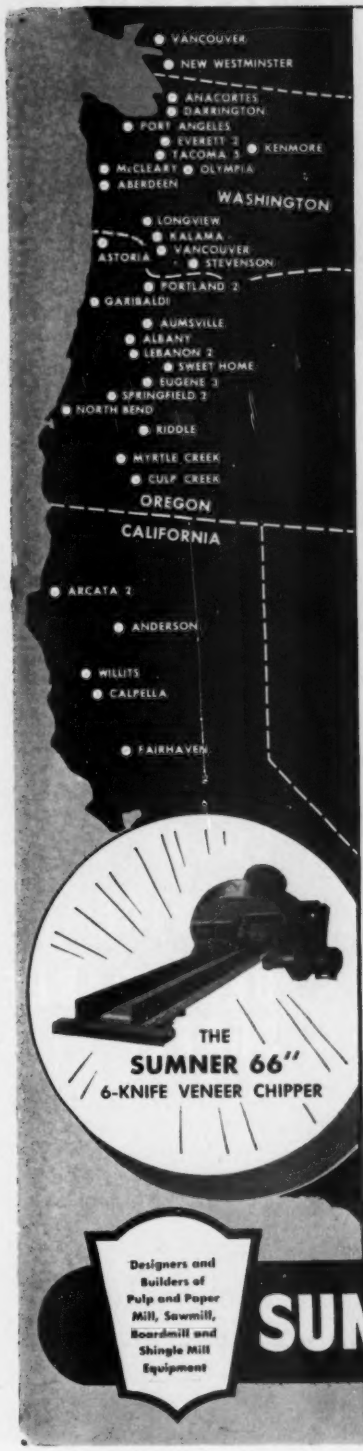
Harry H. Saunders, now production manager, has been promoted to vice president and director duties, may be called in to the Jacksonville office.

Earl L. Hobaugh, a veteran of 43 years paper making, who has been mill superintendent, will become production manager.

Tom S. Coldeway, assistant mill superintendent, will become mill superintendent.

Jake Belin, sales manager, now becomes general manager of container division and sales manager for St. Joe headquarters.

Man uses paper more than any other commodity except water. You are in an indispensable industry.



44 Sumner Veneer Chippers

ARE NOW INSTALLED* IN

WEST COAST PLYWOOD PLANTS 23 IN 1951!

THE CONVERSION of veneer rejects into clean, uniform pulping chips has become a major contribution to the conservation of valuable forest resources.

It is significant that 44 of the leading plywood plants of the West Coast of the United States and Canada(see map)—through the installation of a SUMNER 66" 6-knife Veneer Chipper—have found a consistent market for chips among nearby pulp mills and board mills.

Of particular significance is the fact that 23 of these Chippers—or over half—were installed in 1951! It reflects the widespread acceptance today of the SUMNER Veneer Chipper as a standard part of the production chain in this growing industry.

SUMNER is the original and the leading manufacturer of Veneer Chippers. Installation, operation and maintenance costs have always been nominal.

We invite you to call, wire or write for further details on all SUMNER equipment.

*or are shipped for installation

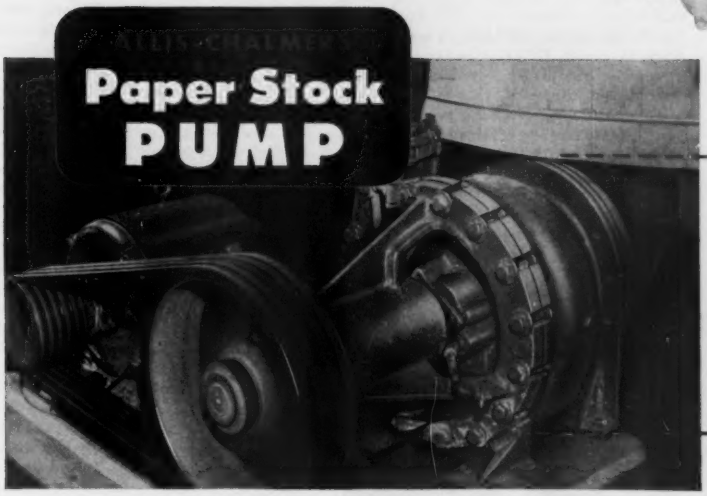
Designers and Builders of Pulp and Paper Mill, Sawmill, Boardmill and Shingle Mill Equipment

ESTABLISHED 1892

SUMNER IRON WORKS

EVERETT, WASHINGTON

PUMP HEAVY STOCK LIKE THIS *with Ease*



16-Inch Suction Adapter Easily Handles Heavier Stocks Without Feeder

YOU CAN GREATLY IMPROVE SUCTION CONDITIONS by using an Allis-Chalmers Paper Stock Pump with a 16-inch suction adapter. By increasing the size of the suction in proportion to the size of the discharge, velocity and friction at the suction are reduced and the chief cause of suction trouble is eliminated. The cost of the adapter is only a small fraction of the cost of special feeding equipment or watering down the stock. This modification of standard design is available on pumps up to 10-inch discharge.

Your best insurance against suction problems is to install, throughout your stock-pumping processes, Allis-Chalmers Paper Stock Pumps with the 16-inch suction adapter. Ask your Allis-Chalmers representative to show you how you can save the time, trouble and cost of air-binding stoppages. Or write Allis-Chalmers, Milwaukee 1, Wisconsin and ask for Bulletin 08B7112. A-3769

Coordinated Design Single Responsibility

In the above installation Allis-Chalmers furnished the complete pumping unit — pump, motor, *Texrope* V-belt drive and control — all of coordinated design and manufacture. The customer saved engineering and installation time and Allis-Chalmers guarantees the performance of the whole unit.

Texrope is an Allis-Chalmers trademark.

ALLIS-CHALMERS

A PAPER INDUSTRY PRODUCER AIRS HIS VIEWS

PROFITS, WAGES AND TAXES

By Roy Sund
Executive Vice President, in Charge of Manufacturing, Marathon Corp.

(From an address Apr. 30 before Neenah-Menasha, Wis., Trades and Labor Council Labor-Management Dinner.)

Things that adversely affect business affect labor, although not always simultaneously. Labor has never benefited—or made progress—when business has been bad.

There are three primary sources of wages—increased productivity, higher selling prices and profits. Yet profits alone seem to be the one and only solution in the minds of too many people.

It *is* startling to realize that the majority of Americans have only a smattering of an idea of what profits are, even though ours still is a so-called profit economy—about the last one on earth.

But our system can't be so bad, can it? Not when large parts of a world which has tried others, must swim from our economic coat tails or sink.

To me a profit is what the man who runs the drugstore—or the corporation which has two dozen plants scattered over the nation—has left *after* paying wages, rent, interest, bills for raw materials and supplies, repairs, and other business expenses —not to forget taxes.

Consider those items—every one intangible, every one unpredictable—and it stands to reason no store, no corporation can fix profits to suit itself.

Depreciation rates established for tax purposes do not write off original cost in ratio to the inflated price of replacement equipment. For example, a printing press that could be bought for $25,000 in 1930 now brings a tidy $154,000, more than six times as much. This is considerably more than the comparative increase in wages—or corporate profits.

Because business is highly competitive, more efficient equipment must replace existing machines. Otherwise, today's successful product becomes a has been in tomorrow's sales shuffle.

No business today can provide adequate funds from its earnings to keep itself fully modern, to say nothing about supporting its growth. Unless the return for use of capital is attractive, people will not invest in business.

The Source of Wages

There are a number of so-called experts who argue that wages can be raised without damage to industry or anything else by simply extracting the raise from profits. This is the same philosophy expounded by a man named Nathan about five years ago. He contended corporations could grant 17 billion dollars in wage increases without raising prices if corporations would be satisfied with the 1936-39 return on net worth.

To begin with, he made the erroneous assumption that profits could be predetermined. He overlooked the fact that 60% of all corporations lost money during that period; and he didn't point out that total corporation earnings estimated by the Treasury during all four years were 4 billion less than the 17 billion he recommended. He seemed to forget that industrial wages had moved up better than 70% since Jan., 1939.

Today we hear a similar tune—a different verse; the claim that business could afford to increase wages 25% by taking the 6.5% of the national income which was received by corporations during 1951.

Let's look at a fact. Compensation of employes, as estimated by the Department of Commerce for 1951, would be increased 9.7% if the entire corporation income for last year had been paid as wages and salaries.

If we can agree that the investor is entitled to a fair return and, assuming dividends last year were fair, then the total of 8.6 billion of undivided profits retained by corporations—if applied to wages and salaries—would amount to an increase of only 4.6%.

About Hidden Taxes

To show how little some know about taxes, an employe in a nearby mill complained bitterly to his boss when he learned he had to dig up $23 for income tax on March 15. He didn't seem aware that the painless deduction called withholding tax had taken nearly twice that amount each month during the year.

I was astonished to find federal income tax deductions for Marathon employes for our U. S. Operations alone totaled $1,970,620. Just for Marathon's Menasha hourly *wage earners*, a single federal withholding tax check would amount to $577,411. Those deductions from the hourly wages in *one* company in this town would run this city nine months.

STEVENS PRESIDENT OF MARATHON

MARATHON CHIEFS (l to r): JOHN STEVENS JR., new President; LEO E. CROY and ROY J. SUND, new Executive Vice Presidents for Marketing and Manufacturing.

John Stevens, Jr., senior vice president from the standpoint of longtime service in Marathon Corp., has been elected to the presidency of that organization succeeding D. Clark Everest, who becomes board chairman. Presidential headquarters thus continue in Rothschild, Wis.

Elected executive vice presidents are Leo E. Croy, for marketing, and Roy J. Sund, for manufacturing. Both are in Menasha, Wis., and carry on overseeing the divisions they headed as vice presidents. Frank J. Dvorak, former assistant to the president, became vice president for finance in Rothschild offices.

Mr. Everest pointed out the four men promoted have a total of 93 years in Marathon, Mr. Stevens having been with the company since 1929. He was born in Appleton, Wis., June 25, 1896, attended U. of Wisconsin and graduated from M.I.T. He was with Fox River Paper Corp. after war service and joined Marathon as Ashland, Wis., mill manager. He headed manufacturing at Menasha, then at Rothschild and for all divisions after 1932, joining the board a year later.

Mr. Everest and Mr. Stevens continue as chairman and president of Marathon Paper Mills of Canada.

Mr. Croy, native of St. Joseph, Mo. has been in Marathon sales since 1925 and on the board since 1937.

Mr. Sund, native of Appleton, joined Marathon in 1923 as purchasing and traffic clerk but left to finish St. Lawrence College, returning to work up in waxed paper and converting operations. Was elected to the board in 1948.

Mr. Dvorak, born in Antigo, Wis., was in lumber business in Rhinelander and later banking before joining Marathon in 1941.

They hide these taxes so well nowadays that all of us are duped or are completely unaware of this big hand that is in our pockets almost at every turn.

Out of every dollar we collected last year on the sale of our products, taxes amounted to 17½¢. Our U. S. corporation taxes are 2½ times what our profit would be on sale of our products in this country.

Our average earned wage per manhour worked was $1.82. Our federal corporate income taxes averaged, per manhour worked, $1.30.

Can you say, when you hear figures like these, that corporation taxes don't affect or concern you? Have you ever wondered who is footing the bill for our country's spending?

I don't profess to be even an amateur in economics but I think it is pretty plain that somewhere along the line you either have to reduce costs—principally taxes—or raise prices to maintain profits. If our purpose is to get more wages and improve the standard of living for everybody, then there must be profits. You don't get wage increases out of losses. Profits and taxes are two specific problems which are common to management and labor.

One More Problem

I would like to speak about one more. If all of us believe in this basic system of living and freedom that is ours, it's up to us, *working together,* to keep that system alive.

Our lives revolve about the successful management of industry to mutual benefit of labor and management and, in the process, welfare of the nation—and world—at large.

In plain English, we—management and labor—better rededicate ourselves to getting along with each other . . . or else. We can't be fighting too much of the time without injury to one group or the other. Remember—when one is hurt, the other must suffer proportionately. We must find more ways to understand, to help and to promote the well-being of each other. I don't believe I'm unrealistic, but I am convinced there's no substitute for mutual respect when mutual benefit is the goal.

IN RECENT INDUSTRY NEWS

HAROLD H. BURROWS (left), who has been promoted to Sales Manager of the Industrial Rubber Goods Sales Division of Raybestos-Manhattan Inc., Passaic, N. J. CHAS. P. M:HUGH succeeded Mr. Burrows as Manager of the Roll Covering and Tank Lining Production Depts., which Mr. Burrows headed since 1942.

D. B. KUHE (right), appointed in charge of Planning and Development, Crossett Paper Mills, Crossett, Ark., where he has been Asst. Mgr. He joined Crossett in 1948, after wide experience in the South and in Mexico. He is a graduate of Wisconsin University.

ENGINEERS PROMOTED

CYRUS NOBLE MULL (left), promoted to Chief Engineer of all Mead Corp. operations, heading Central Engineering at Chillicothe, O. He succeeded G. H. Pringle, who became a Vice Pres. in charge of White Paper Ops. BERNARD J. (BARNEY) SHIELDS (right), promoted to Assistant to Chief Engineer (J. H. Davidson), Minnesota & Ontario Paper, Minneapolis. Born in Hammond, Wis., he graduated from U. of North Dakota in 1932. He is 44, joined M & O in '46 and has been at Int. Falls Mill since '50. He is an electrical engineer.

Pulp and Paper Engineers See Byron Jackson Plants

The Los Angeles operations of Byron Jackson Co., specialists in manufacture of centrifugal pumps, hosted a group of 12 touring pulp and paper engineers from Washington State and British Columbia in May, one of a series of periodic tours arranged for industry engineers. A similar tour was arranged last December for other engineers from the same area.

Lynn Sawyer, vice president and general manager; W. N. Beadlex, vice president; L. C. Kimball, general sales manager; Carl Blom, chief engineer; Ernie Lindros, assistant chief engineer; Ted Arthur, assistant general sales mgr., and others of the B-J staff greeted visitors and showed them the three B-J plants, including a big testing laboratory, an interesting wood pattern shop, and research work in mechanical seals.

Ed Overall, newly appointed pulp and paper application specialist for B-J, and William Frolli, Seattle, Pacific Northwest manager, accompanied the guests.

IN INDUSTRY NEWS

J. O. ROSS (left), who was surprised by unveiling of portrait of himself at official opening of new Ross Engineering Co. manufacturing plant at Highland Park, N. J. He is Founder and Chairman.

JEFFREY W. MEYER (right), has rejoined Wilson & Geo. Meyer & Co., Pacific Coast distributors for chemical for pulp and paper manufacturing and other customers. Released from active duty as 1st Lieut., Army Chemical Corps, he will serve in managerial capacity in San Francisco directing sales. He is great-grandson of founder of the 100-year old firm.

NAMED MILL MANAGERS

WALTER J. WILKS (left), has been appointed Manager of Chase Bag Co., Chagrin Falls, O., Paper Mill where he came as Supt. after World War II. He has been 34 years in papermaking. FRED WITCHONKE (right), appointed Production Manager of Alford Cartons, Ridgefield Park, New Jersey. He has spent 40 years in box and board mills, including Eddy Paper, in Michigan, and Kieckhefer Folding Box Co. in Wisconsin.

M & O Men Patent New Flow Pipe to Screens

Two Minnesota & Ontario Paper Co. supervisors are inventors of a pulp screen flow pipe that has eliminated or substantially eliminated collection of slime on feed boxes to pulp stock screens and screen tubs.

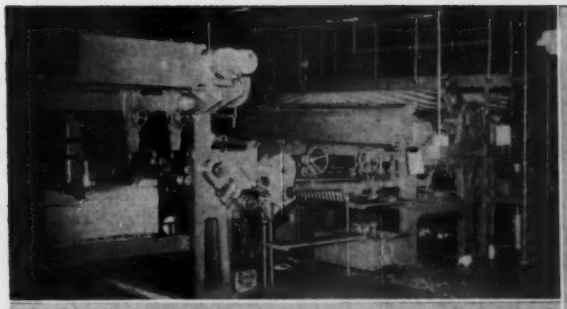
Emmitt S. Anderson, general superintendent of pulp and paper at the Kenora, Ont. mill and Archibald Haley, Kenora machine shop foreman, received a U. S. patent on the new flow pipe, designed for use with a No. 2A Bird screen where the screens are normally equipped with two flow distribution boxes, one on each side of the cylinder, with gravity flow into the screen tub. A considerable number of the screens were installed because of high running speed of the newsprint machine.

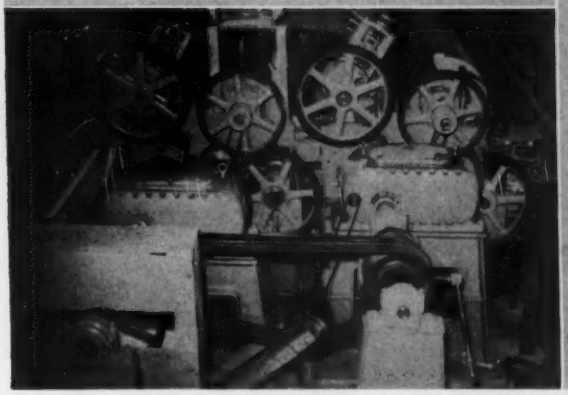
Wooden type flow boxes were a constant trouble, workmen spending much time during weekends removing slime on the boxes. Inventors Anderson and Haley figured a pipe with turbulent flow never gets too dirty; so designed a turbulent flow pipe to replace the gravity flow pipe. The installation not only removes slime in the feed boxes but minimizes slime on screen tubs themselves, and furthermore, capacity of the screen was also increased without excess dirt finding its way through the screens as one would expect.

Plans Proceed For Scott's New Mill

Ground will be broken for the new Scott Paper Co. $20,000,000 paper mill at Everett, Wash., this summer, providing its papermaking debut in the Far West. Vacant ground in the central portion of Gardner Bay, Everett's Puget Sound harbor, will be used, just north of the Soundview Pulp Division.

First of two tissue machines will be a large one, as usual following special Scott engineering design and constructed by Beloit, and this is to be completed by late 1953. It will be Scott's first paper machine west of the Green Bay area of Wisconsin. Plans for a mill at Evadale, Texas, were dropped after purchase of Soundview by stock exchange and the decision to make paper at Everett.





VIEWS OF HEAVY DUTY ROTARY SHEET CUTTER AND LAYBOY in operation at Crown Zellerbach Corp., Camas, Wash.

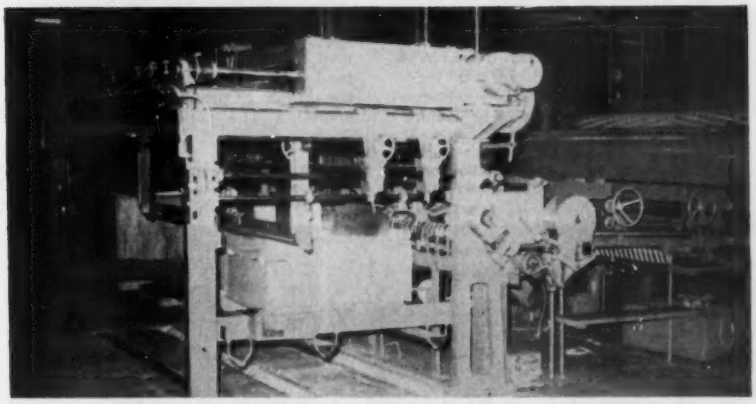
Top left: Moore & White Duplex Cutter with M & W Layboy partly showing at left in same picture. With cutter are shear cut slitters to trim 128 in. and cut 24-72 in length sheets. Here is shown Mamco (Maxson) overlapping delivery tape system and Mamco counter and marker.

Lower left: Two Link-Belt P.I.V. drive units are shown here at back side of Moore & White Duplex cutter and in front and below are Allis-Chalmers variable speed main drive pulley. Also shown are gear pinions on cutter itself. P.I.V. units give control speed to each cutter.

Top right: CECIL KNAPP (left), Finishing Supt., Camas, is showing JOHN H. ZANICKER (middle), Finishing and Shipping Supt., St. Helens Pulp & Paper Co., the variable speed controller on the duplex cutter. This controller is new feature, effected by use of a General Electric packaged speed variator main drive. STEVE THURLOW (right), of Dan E. Charles Agency, representing Moore & White, looks on.

Lower right: OLIVER F. CHAPLIN, Crown Z Development Engineer from Portland, Ore., offices, (in middle) is checking sheet length accuracy at the Moore & White layboy, as DON CARTIER (left), Asst. Finishing Supt., Camas, and Mr. Zanicker from St. Helens, look on.

NEW DESIGN CUTTER AND LAYBOY



COMPLETE VIEW OF NEWLY DESIGNED MOORE & WHITE LAYBOY built especially for heavy duty operation at the Camas Mill of Crown Zellerbach Corp. and equipped with automatic raising and lowering device. To right is part of new duplex cutter.

Operators in finishing divisions of some of the mills in the Columbia-Willamette valleys pulp and paper making region were guests recently at the Crown Zellerbach mill in Camas, Wash., where they viewed a new design rotary sheet cutter and auxiliary equipment in operation.

Marking a new milestone in Moore & White Co.'s long history of making rotary sheet cutters, this is a model of new design, described as a marked advance over previous units, and Camas is one of a few mills in the country which thus far have installed the equipment.

Photographs on this page illustrate the unit, the Moore & White Heavy Duty Duplex Rotary Sheet Cutter, complete with shear cut slitters to trim 128 inches and to cut sheets from 24 to 72 inches in length. With it is shown the Moore & White Duplex Layboy of new design and a 30-roll backstand with Mamco overlapping delivery tape system and Mamco counter and marker.

Drive equipment is a General Electric Co. packaged speed variator unit. Two Link-Belt P.I.V. drive units give speed control to each cutter and operate with Allis-Chalmers variable speed main drive pulley.

Efficient setting of fly-knife, anti-friction bearings throughout, automatic raising and lowering of layboy are other features of the equipment.

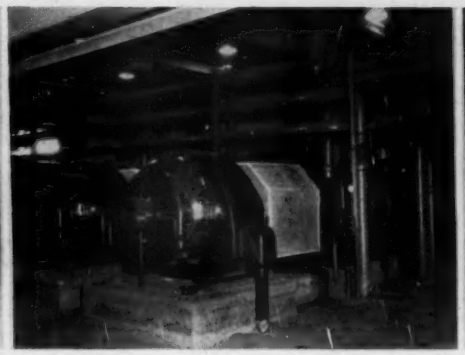
Cecil Knapp is finishing superintendent at Camas and the new equipment is in use in his department.

Dan E. Charles Agency, Seattle, represents Moore & White on the Pacific Coast.

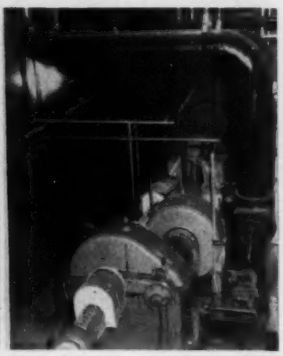
NEW OKLAHOMA MILL

VISITED BY *PULP & PAPER* EDITOR

SIX MIAMI JORDANS are serving the new paper machine at Pryor, Okla.



GENERAL ELECTRIC CO. provided the 200 hp. motors, synchronous type, which drive the jordans.



TERRY STEAM TURBINE drive for paper machine shaft is shown at Pryor. Note safety guard.

New Paper Milltown

On Jan. 25 the National Gypsum Co. started up a new ultra-modern mill near Pryor, Oklahoma, for the production of paper for use in the company's own wallboard plants. Embodying the latest push-button control and worthy of comparison with any of its companions in the Southern pulp and paper field, the unit will produce approximately 54,000 tons annually of 8-ply wallboard paper, largely from waste but with some groundwood and wood pulp. Its $4,500,000 cost was part of a $6,000,000 company paper production improvement program.

The mill is extensively equipped with the most modern paper making machinery. It is of attractive pressed brick, concrete and steel construction, sprinklered throughout, and attractively set-forth in the industry standard color patterns and worker protecting safety devices. The building contains about 125,000 square feet, is substantially rectangular, and is 660 feet in length.

Waste paper is delivered to a car door height concrete platform by rail carrier, with bundles transported across aluminum alloy gangway and into ample storage space by a fleet of five industrial lift trucks. As needed, the same fleet deposits the waste on the bottom of a set of three escalator-type conveyors leading respectively to 12-foot, 14-foot and 20-foot Hydrapulpers. The amounts of groundwood and new wood pulp are handled in like manner. The top ply is new wood pulp.

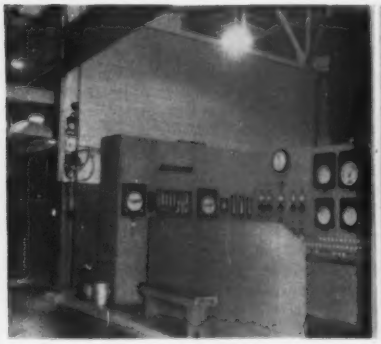
From the Hydrapulpers, which prepare the stock for three major usages in the final laminated product, the stock moves through Hydrafiners and Selectifiers to Classifiners and thence through a 3-section regulator box and three thickeners. Storage is provided by eight tile stock chests.

Refining work is performed by an installation of six jordans, each driven by a 200 HP synchronous motor. From these the stock goes to a set of screens, thence to the 150-ton cylinder paper machine with its eight mixing vats. The paper machine embodies latest push button control and switchgear installation in a recess opposite the press section, being protected from splashing during wash-downs by a curtain that may be lowered during those periods. The control section's panels carry flow instruments, liquid level instruments and flowraters. Operational signals for jordans, motors, etc., are all included on the board.

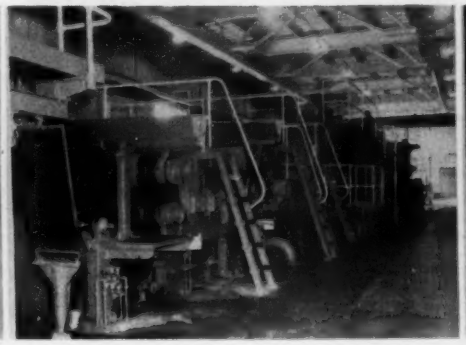
Other paper machine equipment includes exhaust, vapor absorber, and heating and ventilating systems; automatic felt guides; four vacuum pumps; dryer doctors; pressure lubricating system. The dryer section has 100 rolls, terminating in double calender stacks and a high-speed winder with automatic brake.

An overhead 7½ ton crane handles the finished rolls, other machine parts. Industrial lift trucks carry the rolls into railroad cars spotted on tracks wholly within the building, providing a weather-free operation. The paper machine shaft is

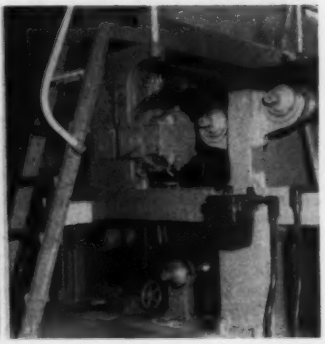
CONTROL SECTION at Pryor mill—opposite machine's press section. Foxboro and Fischer & Porter instruments are used.

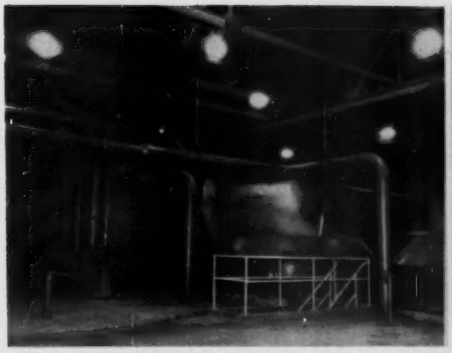


PRESS SECTION OF THE BLACK-CLAWSON cylinder machine in new National Gypsum mill in Oklahoma.

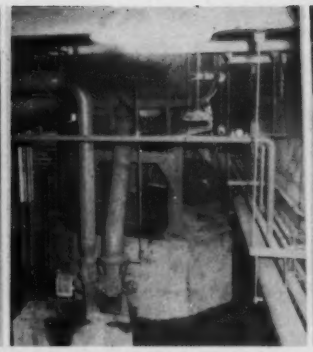


GILBERT & NASH automatic felt guide closeup shows on new Oklahoma cylinder paper machine section.

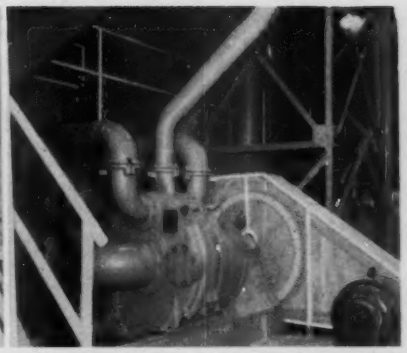




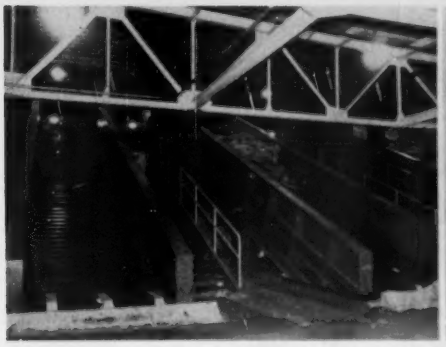
SHARTLE-DILTS HYRAPULPER has 20 foot diameter and Hydrafiner is to left at Pryor mill.



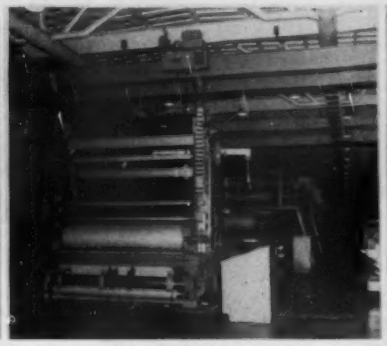
UNDERNEATH OR DRIVING side of the Hydrapulper installations at new mill in Oklahoma.



THREE CLASSIFINERS at the new National Gypsum mill, each being driven by a GE motor.



THREE ESCALATOR-TYPE CONVEYORS serve the three Shartle Hydrapulpers at Pryor, Okla.



CAMERON MACHINE CO. winder and overhead Shepard Niles crane are new Oklahoma installations.

THIS LIFT TRUCK is handling finished roll from behind winder to indoor track railroad car.

turbine-driven.

Pryor, a typical hustling 5,000 population Oklahoma community, derives its name from Nathaniel Pryor, a Virginian by birth and a member of the famed Lewis & Clark Expedition of 1803. He reentered the U. S. Army in 1813, remaining until he left the service as a Captain in 1815. He subsequently established an Indian trading post at Three Forks, on the Verdigris River, near the present site of Pryor, becoming a noted figure in early Oklahoma's life. He is credited as the first to bring finely bred horses to Oklahoma from Kentucky.

The Pryor unit is the fourth paper producing mill operated by National Gypsum Co. It was planned to integrate western operations, serving the company's gypsum board plants at Fort Dodge (Iowa), Rotan (Texas), and Medicine Lodge (Kansas). Its special liner paper is being used in fireproof gypsum board products inccluidng gypsum lath, wallboard and exterior sheathing. It was designed and erected under the supervision of the company's production and engineering staffs. Construction work started June 1, 1951.

The actual location is on a 40-acre portion of the World War II Oklahoma Ordnance Works, now controlled by the Grand River Dam Authority. The Authority furnished the site; continues to furnish electricity, steam and compressed air. Pryor is 44 miles from Muskogee, Oklahoma's Indian capital; 52 miles from Tulsa, Oklahoma's oil capital; and 132 miles from Oklahoma City, Oklahoma's state capital. The general area is noted for its many lakes and streams; its vacation accommodations; and its fine fishing.

General headquarters are in Buffalo, N.Y. Melvin H. Baker is chairman; Lewis R. Sanderson is president; Fred A. Manske, vice president i/c operations; and Frank D. Davis, public relations manager. Design and construction of the Pryor mill was under the supervision of L. H. Hank and W. J. Sprau, production dept. and S. D. Skinner, chief engineer.

At Pryor, Paul J. Dumas is plant manager; E. E. Nooe, mill superintendent; R. N. Schnabel, office manager; L. R. Schultz, purchasing agent; R. R. King, personnel and safety supervisor; C. M. Cass, receiving superintendent; W. S. Gorman, quality supervisor; and, R. L. Harris, maintenance supervisor.

EQUIPMENT SUPPLIERS

Black-Clawson Co., Shartle Brothers Machine Co., Dilts Machine Works, General Electric Co., Bulkley-Dunton Pulp Co., Sandy Hill Iron and Brass Works, Foxboro Co., Fischer & Porter Co., Bailey Meter Co., J. O. Ross Engineering Co., Gilbert & Nash Co., Nash Engineering Co., Lodding Engineering Co., Cameron Machine Co., Towmotor Corp., Terry Steam Turbine Co, Globe Hoist Co., Shepard Niles Crane Co.

Nat. Gypsum Buys Wesco

National Gypsum Co. announced acquisition of Wesco Waterpaints, Inc., with plants at Trenton, N.J.; Good Hope, La.; Matteson, Ill.; Berkeley and Los Angeles, Calif.; Seattle; and Montreal. This will improve National Gypsum's position in the market for wall and ceiling construction materials, said Melvin H. Baker, chairman of National Gypsum Co.

IN OKLAHOMA AND OHIO

JOHN H. LEFEVRE, Erector for Downingtown Mfg. Co., was caught by camera in act of supervising erection of new paper machine in Coronado Mfg. Co., Pryor, Okla., new subsidiary of Certain-teed Products.

W. H. PLOWMAN, who has been a "Goulds Guy" in Oklahoma territory for 16 years. With two new mills in Oklahoma, his attention is now focussing on pulp and paper industry for Goulds Pumps. His headquarters are in Tulsa, Okla.

ANTONE HORSTMAN, appointed Manager of Laboratory Operations for Bauer Bros., Springfield, O. He was formerly engineer for Weston American Maize Co., Roby, Ind.

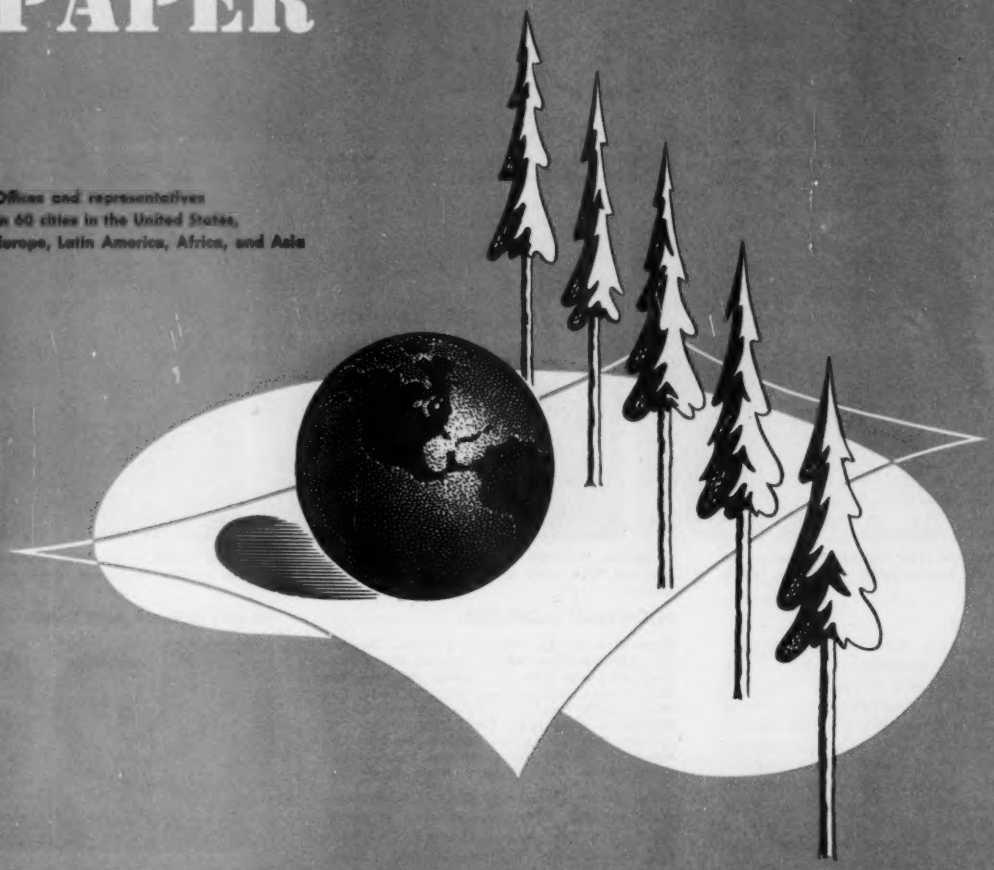
Canadian Newsprint Price Increase

Increase of Canadian newsprint prices by approximately $10 a ton, bringing the basic price to approximately $126 a ton, was indicated this month as a result of steadily mounting costs of production, plus loss of the premium on U. S. funds.

On the basis of last year's sales to the U. S., Canadian mills would have lost $50,000,000 a year under the new exchange setup. The industry was faced, too, with a new wage increase May 1.

WOOD PULP
PAPER

Offices and representatives
in 60 cities in the United States,
Europe, Latin America, Africa, and Asia



BULKLEY, DUNTON & CO., INC. • BULKLEY, DUNTON PULP CO., INC. • BULKLEY, DUNTON PAPER CO., S. A.
BULKLEY, DUNTON CELLULOSE EXPORTS, INC. • BULKLEY, DUNTON PAPER (FAR EAST) CO., INC.
In New England—CARTER, RICE & CO. CORPORATION

BULKLEY, DUNTON
ORGANIZATION
295 MADISON AVENUE, NEW YORK 17, N. Y.

Personals

PACIFIC COAST NOTES

LLOYD HEARD, project engineer at Longview Fibre Co., Longview, Wash., and *BILL COTTON*, assistant general manager of Masonite's new board plant at Ukiah, Calif., are both classmates from the University of Michigan.

J. E. HANNY, who retired as vice president in charge of manufacturing, Crown Zellerbach Corp., San Francisco, has moved to Portland, Ore., where he lives in his newly purchased home at 150 N.W. Hermosa Boulevard. His plans include catching up on golf and traveling.

EDWARD R. GAY, vice president, St. Regis, was a recent visitor to their Tacoma mill, where *WALTER DELONG*, western vice president, returned after a Puerto Rico trip.

W. K. ULM, technical director of Fibreboard Products Co., San Joaquin, Cal., visited pulp and paper mills in the Northwest during late April.

H. B. PETERSON, sales engineer of Paper Maker Chemicals Dept., Hercules Powder Co., Portland, Ore., and secretary-treasurer of Pacific Section TAPPI, spent one week of April in hospital and another convalescing at home. The trouble—ulcers. He has fully recovered.

R. M. COTNER, assistant secretary and assistant treasurer of Fibreboard Products Inc., San Francisco, has been appointed general credit manager.

ED GARRISON, manager, American Cyanamid Co., Seattle; *R. W. LULL*, technical service for pulp and paper, Portland, Ore.; and *HERB PRATT*, manager at San Francisco, attended a sales meeting at the company's West Coast headquarters in Los Angeles in April. *S. T. DAHL*, Pacific Coast sales manager, headed the meeting. While in Southern California, Mr. Garrison, who has been a member of American Cyanamid's 25-year Club, attended the annual Pacific Coast meeting at the Rainbow Angling Club.

LAYTON LOFTIN, formerly assistant office manager and purchasing agent, has been named office manager of Crown Zellerbach Corp., Lebanon, Ore., filling vacancy resulting from the death of *HUGH OLDS*. *LUTHER B. LYNCH* has been promoted to assistant office manager.

PAUL BALDWIN, assistant vice president, Scott Paper Co., resident in charge of engineering and construction of the new paper mill at Everett, Wash., and also of subsidiary pulp mills of Anacortes and Coos Bay, has moved with his wife and children into their new home on Grand Avenue in Everett.

E. D. OCHS has succeeded *WOLFE C. GIGLER* as converting plant supt., Crown Zellerbach, Camas. We announced previously Mr. Gigler's promotion to production supt. of the new San Leandro, Calif., converting plant.

RUDYARD R. OLSON has joined the Seattle district office of Allis-Chalmers general machinery division as a sales representative. Olson is a 1951 electrical engineering graduate of the University of Washington. He is a member of the American Institute of Electrical Engineers.

ERIC HALVERSON, 18 years with Fibreboard Products, Stockton, Calif., recently as watchman and formerly in heater room has retired.

TOM STEWART, steam and power superintendent for Longview plants of Weyerhaeuser, and *HAL MOORHEAD*, Powell River's resident engineer, were good sports at a recent evening with pulp and paper engineers and let a slick sleight-of-hand artist pick baby chicks hidden in their clothes. A ticklish experience, they agreed.

J. O. MORRIS, chief engineer of Crown Zellerbach Corp., plant at Lebanon, Ore., retired May 1 with 48 years service at this mill.

DEWEY RIGGS, formerly plant engineer for Longview Fibre Co., and now chief engineer for Olympia Brewery, Olympia, Wash., which, incidentally temporarily housed a paper mill project during the Great Prohibition Experiment, recently lost ends of a couple fingers on some power tool equipment in his home.

WESTINGHOUSE PROMOTIONS

DAVID C. FULTON (left), from Portland, Ore., office, now Pacific Coast Machinery Electrification Mgr. for Westinghouse, San Francisco. His new home—there—161 Serrano Drive. A native of Victoria, B. C., he graduated from Oregon State in e. e. in 1938; joined Westinghouse a year later. He was an Army Engineers major in the war. JOSEPH A. TUDOR (right), has succeeded Mr. Fulton as Industrial Application Engineer in Portland, where he has been Westinghouse pulp, paper and lumber consultant since 1944. He will continue to service woods industries. He helped develop a new all-electronic paper machine drive and log carriage drives. Born in Anacortes, Wash., he graduated from U. of Washington in e. e., joined WEC in '41. A college golf team man and winner of a Portland industries title, he lives at 3905 NE 115th, Portland.

TOM KIRBY of Electric Steel Foundry, Portland, Ore., recently made a trip into South Carolina and Tennessee for Esco.

LOUIS VAN ARSDALE, plant engineer, Rayonier, Shelton, Wash., moves out with wife and son Lornie, to their summer lakeside home about ten miles north of Shelton as soon as school is out.

WILLIAM SCOTT formerly at Crown Zellerbach, Camas, is now shift foreman at Masonite's new plant in Ukiah, Calif. His father, *WALTER SCOTT*, recently retired at Camas where he was on paper machines.

W. T. WIDMANN, now on special wood products production projects for Weyerhaeuser Timber Co., in Tacoma, Wash., was production superintendent at Ukiah, Calif. for Masonite and was a foreman at the Puget Sound Pulp & Timber Co., Bellingham, Wash., and Rayonier.

OLLIE DUNCAN, formerly at Potlatch and Crown Zellerbach mills and mills in the south is in a new mill at Pryor, Okla. as superintendent.

Abercrombie in West

Ralph "Pidge" Abercrombie, vice president and sales manager of Cheney-Bigelow Wire Works, made his first tour of Pacific Coast mills in about a year and a half when he recently covered the circuit with Cheney-Bigelow's Pacific Coast representative, Walter A. Salmonson, of Portland, Ore.

Zellerbach, Weyerhaeuser Speak on Future

J. D. Zellerbach, president of Crown Z, speaking on paper industry, and J. P. Weyerhaeuser, Jr., president of Weyerhaeuser Timber Co., speaking on timber resources, depicted a solid outlook for the future to the National Federation of Financial Analysts Societies meeting in San Francisco. The analysts later journeyed to Oregon where they toured a Crown Zellerbach Tree Farm.

8% Below 1951 Record

The U. S. paper industry is producing 8% below the record of last year. In the first quarter of 1952 it made 6,183,000 tons. This is at an annual rate of 24,732,000. Last year's record was 26,086,115 tons.

FILTER PLANTS TEAM

WILLIAM R. GIBSON (left) and J. RODGER SHERIDAN (right), who are now partners in Northwest Filter Co., 122 Elliot W., Seattle, and have directed that company's activity now exclusively to custom designing of filter plants to meet mill needs, and site and supply situations. Mr. Gibson, Glasgow-born, was former Rayonier Chief Engineer and headed Northwest Filter 15 years. Mr. Sheridan, New York-born continues to represent Hagan Corp. in the West.

New Northwest Filter Co. Partnership Is Formed

William R. Gibson, for 15 years head of the Northwest Filter Co., of Seattle, and J. Rodger Sheridan, for the past five years head of United Engineering Co., of Portland and Seattle, have formed a partnership under the continuing firm name of Northwest Filter Co., headquarters at 122 Eliot W., Seattle, for development and design of custom-built filter plants.

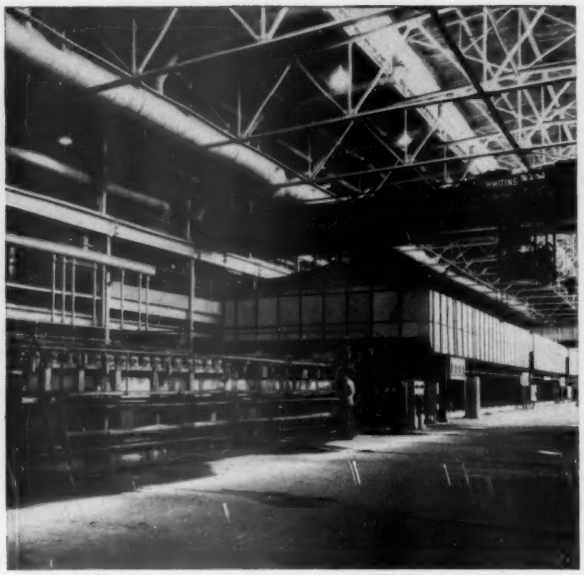
Mr. Gibson, born in Glasgow, Scotland, educated at London University, went to the West Coast as engineer with Crown Zellerbach and was chief engineer of a predecessor Rayonier company. He joined Ken "Cap" Shibley in Northwest Filter Co. just a year before the latter's untimely death, after which Mr. Gibson became head of the firm.

Mr. Sheridan was born in New York City, is a graduate chem. engineer from Cooper Union Institute of Technology. He was with Ebasco in Panama for many years, was with Seattle Gas Co. two years and for ten years with American Smelting & Refining Corp., Salt Lake, as power engineer. He will continue to head his firm of United Engineering Co., which represents Hagan Corp., manufacturers of automatic machine controls, and Hall Laboratories, boiler water conditioning firm, both of Pittsburgh.

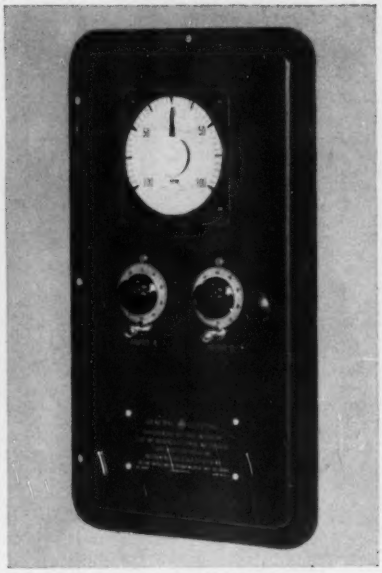
Tom Headley continues in charge of its Portland, Ore., office—835 N. E. Broadway.

Damtoft and Everest Advise U. S. on Forestry

Secretary of Agriculture Charles F. Brannan has named six consultants to consider ways of strengthening the Department's forest insect and disease control activities. The six are Walter Damtoft, Champion Paper and Fibre Co., Canton, N.C.; D. Clark Everest, Marathon Corp., Rothchild, Wis.; Ernest Kolbe, Western Pine Assn., Portland, Ore.; Fred H. Lang, president, Association of State Foresters, Little Rock, Ark.; Dr. A. M. McAndrews, Syracuse University; and Fred W. Roewekamp, city forester, Los Angeles.

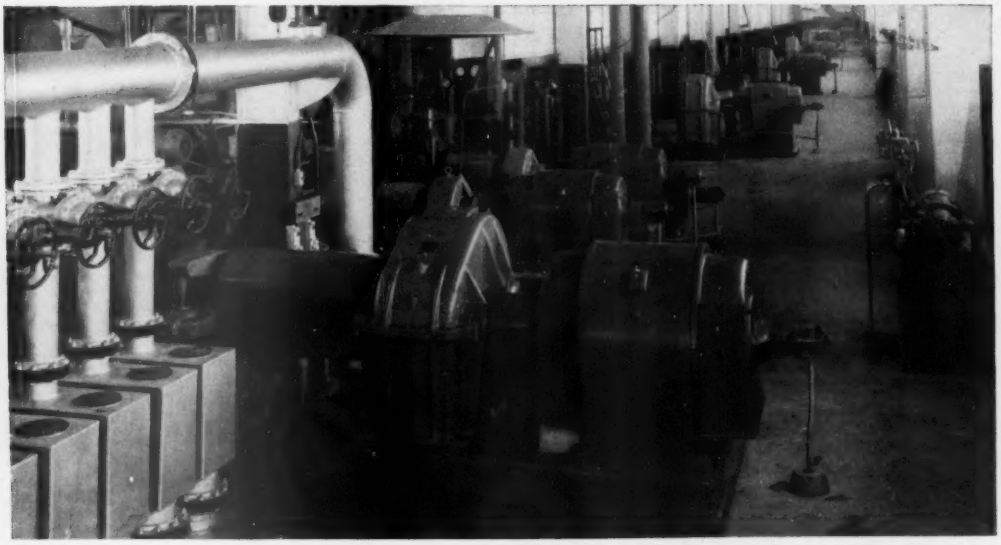


New G-E draw indicator can accurately measure speeds between adjacent wet-end sections. It is adjustable over a wide range of draw settings and paper speeds to simplify and speed start-ups and grade changes.



To quickly identify draws and simplify draw control, G-E draw indicators can be conveniently mounted on operator's control panels. Components are protected against dust and water.

For more tonnage, tie



One advantage of a G-E electronic-amplidyne sectional drive is its adaptability to new production-boosting tools such as the draw indicator and the tensiometer. As other new devices are developed, they too can be incorporated.

New G-E tensiometer continuously indicates sheet tension, permits accurate control of tension regardless of paper-making variables.

Light-weight, four-inch roller on paper tensiometer head will not mark or damage finest paper. Tensiometer can be used with G-E sectional drives to hold sheet tension automatically.

down draw and tension

New G-E production instruments give paper-makers closer control of draw and tension for greater uniformity and fewer breaks

Now, to make draw and tension setting an exact science, General Electric offers two new instruments —the draw indicator and the paper tensiometer. For the first time, you can "tie down" draw measurements . . . find out optimum draw and tension values for all grades . . . repeat them every run. You get more saleable paper, less broke, lower production costs.

Draw indicator helps you control wet-end draw

- Speeds sheet threading
- Reduces breaks at wet end
- Makes grade changes easier and quicker
- Reduces wraps at size presses and coaters

Paper tensiometer helps you control dry-end tension

- Reduces snap-offs, wrinkles, calender cuts
- Will not damage sheet or interfere with threading
- Has fast response—works at highest machine speeds
- Permits tighter draws for faster, more uniform drying

Moreover, these two devices, in combination with any G-E electronic-amplidyne sectional drive, provide a system for complete instrumentation and fully-automatic control of draw and tension.

Your G-E sales engineer will be glad to tell you more about these two new instruments. Call your nearest G-E Apparatus Sales Office today. *General Electric Company, Schenectady 5, N. Y.* 655-11

Engineered electric systems for paper mills

GENERAL ELECTRIC

BOWATER MEN IN TENNESSEE

SUTTON JOINS ELDERKIN AS ASST. GEN. MGR.

H. M. SPENCER LEWIN (left)—whose initials HMS stand before every ship in Her Majesty's Navy which he formerly officered—is Vice Pres. and Gen. Mgr. of the big Bowater's newsprint mill in Newfoundland. He recently visited site at Charleston, Tenn., of new Bowater's Southern Paper Corp.'s projected 2-machine 300,000-ton Mill. VICTOR SUTTON (right), has been sent from London to be new Assistant General Manager of Bowater's Southern Paper Corp., under Gen. Mgr. K. O. Elderkin. He is on loan from post as Director of Research and Development for Bowater's England. His earlier career was in Newfoundland and other Canadian mills, was born in Ontario.

Ontario-born Victor Sutton, director of research and development for Bowater's England, whose early career in paper technology was in the Canadian and Newfoundland industry, has been sent from London to the new site for the projected Bowater's Southern Paper Corp. mill at Charleston, Tenn. He will be assistant general manager of the Tennessee operations.

K. O. Elderkin, announced here last month as new general manager in Tennessee, where he went from Crossett Paper Mills, told PULP & PAPER that Mr. Sutton has been working on the project for Tennessee for some time, and is on loan from London.

Pictures on this page of key Bowater's men involved actively or advisedly in the new Southern development were all taken by PULP & PAPER during recent editorial visits to other Bowater centers.

We reported last month in an exclusive interview with Sir Eric Bowater that the Tennessee mill will have two identical 227-in. Beloit Fourdrinier machines of potential 2,000 fpm. speed, with the new Beloit suction pick-up and driven by General Electric sectional drive. J. E. Sirrine Co., Greenville, S. C., are engineers. All of the 300,000 tons a year of newsprint is contracted for by 100 Southern newspapers on long terms. Over 200,000 acres of forest back up the venture.

A number of key men in the big Bowater organizations in Newfoundland and London (in London, Bowater has biggest newsprint mill in world), in financial, technical, and possibly, operations and timber fields, will be involved in the new project, in advisory or active roles. For that reason PULP & PAPER introduces to readers these exclusive pictures and information about many of the Bowater key men who may be involved.

A. B. Meyer, president of Bowater Paper Co., 250 Park Ave., New York, and a director of Bowater's Newfoundland, also is president of the new Southern company. Charles T. Hicks is vice president, as he is of Bowater Paper in New York.

Corner Brook Mgr. Visits Site

H. M. Spencer Lewin, who is vice president and general manager, since 1938, of the big Bowater's Newfoundland Mills, was a recent visitor at the Tennessee site where he made a survey in behalf of the parent company in London. He is a chartered accountant in England (would be a c.p.a. in U.S.), and previously managed company timber interests at St. John's, Nfd., and was in Canada. He very fittingly is an ex-officer of Her Majesty's Navy—his initials "HMS" appearing before the name of every ship under her rule.

THREE OF TOP EXECUTIVES at Bowater's Newfoundland Operations in Corner Brook (l to r): JAMES GOWE WYLIE, is Asst. General Mgr. and Comptroller of the Newfoundland mill and was made a Director in 1948. Born in Glasgow, Scotland; was educated in London, moved to Canada in 1928; was with Howard Smith Mills in Canada before joining Bowater's in 1944. Before that was with DuPont in Canada.

WILLIAM HERDMAN, Treasurer of the Newfoundland company and veteran in its service. Came from Newcastle-on-Tyne, when mill was built. His cabin on the Humber River is famed among visitors and sportsmen.

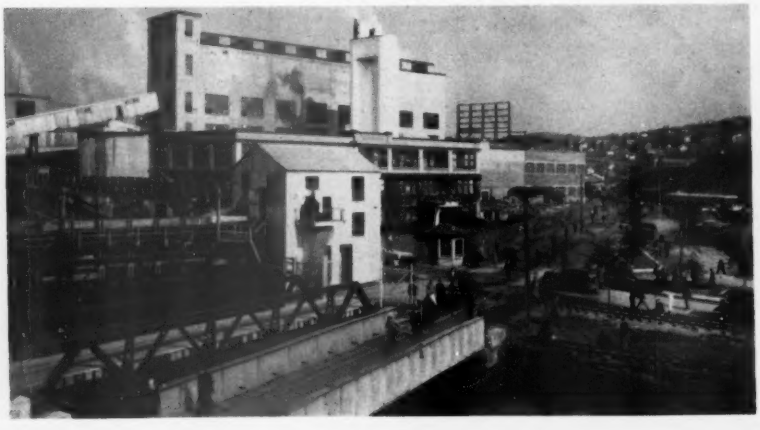
GEORGE H. CARSON, is a Director and also Assistant General Mgr. of operations in Newfoundland. Born in Eastern Townships, Quebec, he has been at Corner Brook, Nfd., since the mill was built in 1924. Before his promotion in 1948, he was Chief Engineer. His brother, William Carson, is well known in Montreal as logging equipment man. They both first worked at Laurentide Mill in Quebec.

Sutton's Career History

Mr. Sutton, assistant to Mr. Elderkin, was born on Grand Manitoulin Island, 40 miles from the famed mill town of Espanola. But he started his career in research at Iriquois Falls Mill, then helped organize Mersey Paper Co.'s technical department at Liverpool, N. S. In 1937 he went back with Abitibi, at their Beaupre Mill where he was assistant to Mgr. Dan Dupuis. Until a few years ago he was assistant to Mill Manager Gerald Penney in the Newfoundland operations.

One of the things he was famed for in Newfoundland—in case Mr. Elderkin may not know it—was that he conceived and founded a mill town Community Concert Association which brought many great musical artists to the town. He also was president of the Terra Nova Golf Club there.

Sir Eric V. Bowater is now in his latter 50's, all spent in the paper industry which grandfather, William V. Bowater, founded, except for World War I service as a member of Britain's famed Viper's Nest of flyers. He has specialized in the financial end of the business, but has a well-rounded background.



HERE'S BOWATER'S Big Mills at Corner Brook, Nfd. (PULP & PAPER photo). Though BOWATER SOUTHERN will be kraft and groundwood, it may be similar in many respects to this sulfite and groundwood newsprint mill. This view shows big Office Bldg. in foreground; chip conveyor to left entering Pulp Mill; white Acid Towers behind office; recently built Calender Room extension at right. It has six Foudrinier machines—newest (no. 7) being Dominion Engineering 284 in., one of the world's biggest and fastest.

THESE ARE KEY MEN OF MAMMOTH BOWATER'S operations in Corner Brook, Newfoundland, and it is possible some of them may be called on to contribute from their long experience in high speed papermaking, pulp manufacture, wood mechanization and engineering to boost along the new Bowater Southern Paper Corp. Left to right (all pictures taken by PULP & PAPER editor in Newfoundland):

GERALD PENNEY, Mill Manager for all Newfoundland operations, who has held that post many years. A native "Newfie," he is known by many papermakers on the continent having attended meetings from Montreal to New York to Vancouver, B. C.

MARSHALL C. COLLINS, Chief Engineer for over three years and former Asst. Chief Engineer at Newfoundland Mills. Born at Tupper Lake (Faust), N. Y., graduated from Clarkson College of Technology at Potsdam, N. Y., in 1928. Was with United Fruit in South America for five years, then with International Paper in New York. He went to Newfoundland in 1936.

LYLE LANG, recently promoted to General Superintendent at Corner Brook, was for many years Sulfite Supt. there. He comes from a well known Wisconsin family of pulp industry specialists. An older brother, Lloyd, is Jenssen Co. representative, De Pere, Wis., and was with Kimberly-Clark and Crosset, and another, Stuart, is sulfite supervisor at Marinette, Wis.

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Assistant Woodlands Mgr.,
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Forestry "Hall of Fame"

NAMED TO a Mythical Southern Forestry "HALL OF FAME": N. F. McGOWIN (left) President of W. T. Smith Lumber Co., Chapman, Alabama, and DR. CARL SCHENCK, of Heidelberg, Germany.

In a recent talk before the Southern Pine Association in New Orleans, Reuben B. Robertson, chairman of Champion Paper & Fibre Co., paid high tribute to the "pioneers of private forestry" in the South —and he did not hesitate to name names. These men, he said, have led the South successfully away from the "bad forest practices of earlier years":

Dr. Carl Schenck of Heidelberg, Germany (retained by Champion in 1907 to survey and recommend what to do with its pine after losing its spruce stands to the Great Smoky National Park and its chestnut to the blight); Henry Hardtner of Urania, Col. Sullivan of Great Southern Lumber Company, Sessions of Georgia, McGowin, Allison and Miller of Alabama, Sanderson and Temple of Texas, L. O. Crosby of Mississippi, and the Crossett and Dierks group in Arkansas.

"These men have earned an honored place in the Nation's Hall of Fame," said Mr. Robertson.

D TRACY

SADA (left), retired Air Force
s figuring prominently in direct
d planning for Olin Industries
nd cellophane pulp mill to be
in East Texas-North La.-South
dwoods and pine. He was re-
ice Pres. and Director. He was
ther—Spanish; mother—Irish);
D. C., attended Georgetown and
d joined army as a private, age
ded Eniwetok Atom Bomb tests.
daughter of Publisher Jos. Pu-

ight), newly appointed Director
nd Paperboard Division, NPA.,
C., is on leave as Industrial Re-
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ng pine and hardwoods of
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rth Louisiana-south Arkan-
ring decisions were still

ST. REGIS ADVANCES

WILLIAM R. ADAMS (left), now Vice Pres. in charge of all Pulp and Paper Mfg. for St. Regis Paper Co., has been elected to its board of directors. He came from Watertown, N. Y., joined St. Regis in 1937, where he started in the industry, but now headquarters in New York.

ALEX SMALLEY (right), Director of Labor Relations for all the operations of St. Regis, has been elected a Vice President and also h'quarters in New York. He joined St. Regis in 1945.

VULCAN COPPER & SUPPLY MOVES INTO ITS 51ST YEAR

T. O. WENTWORTH (left), President, who recently announced divisional changes in Vulcan Copper & Supply Co., Cincinnati, O., to improve services to process industries and expand facilities for designing and building entire process plants from ground up, as Vulcan enters its 51st year. THOMAS CARROLL (right), Vice President, is head of sales and also temporarily Manager of Vulcan Construction Division, which performs contracts for erection of plants and installations. Other divisions handle engineering and manufacturing.

A. ROZYSKIE HONORED

E. H. NEESE, (left), Chairman of Beloit Iron Works, is awarding ADAM ROZYSKIE, (right), now Mill Mgr. at Camden, Ark., Southern Kraft Div., International Paper Co., a diamond pin as Honorary Member of Beloit's Quarter Century Club, and in recognition of his important role in developing the South. This member of famed Rozyskie family of papermakers from Michigan was at Bastrop, La., Mill when Mr. Neese contracted with I.P. for the pioneer removable Fourdrinier Beloit machine over 25 years ago. Southern Kraft now has over 20 Beloit machines. Accompanying Mr. Rozyskie to Beloit, Wis., was A. P. Felton.

SAVES LEGS – AND TIME – OF SUPERINTENDENTS

SUPERVISOR'S INSTRUMENTS

By Raymond M. Chermak, Electrical Supervisor, KVP Co., Parchment, Mich. *and* **David B. Gearhart, Sales Engineer, General Electric Co., Grand Rapids, Mich.**

The world's largest producer of paper products for food protection, the Kalamazoo Vegetable Parchment Co., Parchment, Mich., recently installed a series of supervisory instruments to save the time of their production supervisors. KVP's management, worried over the large amount of time spent by supervisors in routine trips to various parts of the mill, eliminated many of these trips by installing switchboard-type recording instruments on the walls of supervisors' offices. Now, up-to-the-minute records of paper machine performance are brought right to their desks, and a quick glance at the recorders immediately shows whether production is going smoothly or trouble is developing. Also, by inspecting the record charts each morning, supervisors can quickly acquaint themselves with the previous night's performance.

The need for instrumentation of this type was recognized when supervisors realized that a large portion of their time was spent in trips to the various machines to check on production rates. They reasoned that if this routine information could be brought right to their desks—with a minimum of delay—they could decrease the number of their trips to include only those cases in which their personal supervision was needed.

DAVID B. GEARHART (left), is Sales Engineer for General Electric Co., headquartered at 148 Monroe, Grand Rapids, Mich., and he is one of GE's specialists in the paper industry. RAYMOND M. CHERMAK (right), Electrical Supervisor for KVP at Parchment, Mich., was himself a former GE engineer with wide experience all over the U.S., finally working on paper industry projects out of Grand Rapids before joining KVP in 1949.

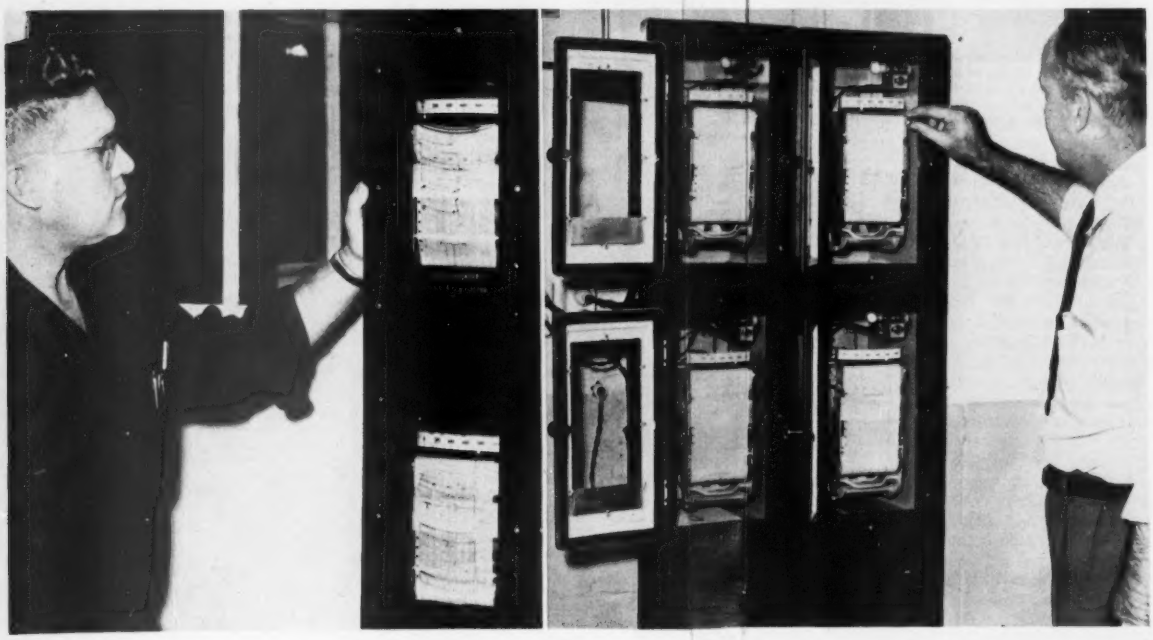
The obvious solution seemed to be some type of recording instrument installed at the supervisor's desk and giving a continuous and instantaneous indication of web speed. In cooperation with the General Electric sales engineer, a system was devised and installed on one of the paper machines for trial.

This trial installation consisted of four principal components: (1) A tachometer generator connected to the paper-machine drive; (2) an indicating instrument located at the machine to show the web speed; (3) a recording instrument located in a supervisor's office to record the web speed; and (4) a web-break detector arranged to give a visual alarm upon the occurrence of a break in the paper web. After a few weeks of trial, this equipment so assisted the supervisors that KVP installed eleven more. They are now marketed by General Electric as kits for production supervisors.

The principal feature of the tachometer package is the recording instrument mounted in the supervisor's office (*see Fig. 1*). It is a strip-chart type for semi-flush mounting on switchboards. Calibrated to read directly in feet per minute, the chart is driven at a rate of three inches per

FIG. 1—AT A GLANCE, a production supervisor can check performance of paper machines located anywhere in mill. Used in conjunction with other components of the production supervisor's kit, the General Electric recording instruments provide him with continuous, up-to-minute machine records right in his own office.

FIG. 2—VIEW OF ANOTHER GROUP of General Electric recording instruments located in Mill No. 2 Supt. Les LaLiberte's office. Like a window shade, the record roll can be pulled out for reviewing previous production.



hour by an electric clock motor. The chart drive is so constructed that the entire record roll can be inspected without disturbing the operation of the recorder (*see Fig. 2*); each morning supervisors can review the previous night's performance by a short examination of the chart. Also, a metal plate is provided in back of the chart paper so that notations for future reference can be readily made. Because this recorder offers easy access to the mechanism for changing record rolls and for minor maintenance, it is especially suited for an industrial application of this type.

The tachometer generator (*see Fig. 3*) selected is a direct-current type—the same as used for automatic control of the paper machines. Thereby, the number of spare parts that must be kept in stocks is minimized.

A switchboard-type indicating instrument is mounted near the paper machines and gives the web speed directly in feet per minute. This instrument is small enough so that it occupies little space, yet the scale is easy to read at some distance, and accuracy is within one per cent of full-scale value.

The web-break detector gives red-light signals whenever the paper web breaks. One signal is placed by the paper machine reel, and one on each side of the machine at the couch end. However, the detector could also have been connected to give an audible alarm, to indicate all web breaks on the recorder, or even to shut down the machine automatically to prevent damage and minimize material waste. In applications where web-break detection is not required, the detector could, of course, be omitted without impairing the usefulness of the tachometer-recorder combination.

Having production information brought right into the offices has saved supervisors an estimated two hours a day—valuable time which can now be applied productively elsewhere. If trouble develops on a paper machine, the supervisor can investigate immediately, thus speeding production. Also, now that paper-machine operation is a matter of record, supervision is eased by the elimination of arguments about past productions. Savings resulting from these advantages have quickly paid off the initial investment.

About this Article and About the Two Authors

PULP & PAPER is pleased to present this article, especially prepared for the particular readership of this magazine—*the supervisory and production management men in mills all over the North American Continent.*

Here is an interesting discussion of equipment especially designed to cut down a lot of "leg work" that these men are subjected to. They do a lot of walking and climbing, in their never-ending inspections of their mills. Of course, some of it is desirable and necessary . . . . but perhaps not so much as some do. We can almost hear a lot of our readers say "amen" to that!

The co-authors of this article are very well known in the Middle West industry. Dave Gearhart works out of the General Electric office in Grand Rapids, Mich., and is one of GE's outstanding paper industry specialists. In our February 1952 issue we carried an exclusive illustrated article on the Lee Paper Co. and its new and unique installations. All of the electrical equipment was by GE and Mr. Gearhart had his hand in these new features.

Raymond M. Chermak is himself an old GE paper mill specialist. He joined KVP in Sept. 1949 and is its electrical supervisor. Born in Hutchinson, Southern Minnesota, he was one of seven children—all boys—in his Czechoslovak family. The parents, still living in Proctor, Minn., had a 50th wedding anniversary, and five surviving brothers and parents reorganized their family orchestra. The family orchestra had consisted of piano, two violins, bass fiddle, trombone, trumpet, two saxes and drums. Ray plays the drums.

A graduate of U. of Minnesota, 1941, he joined GE that year and installed gun controls on warships in nearly all shipyards in the U.S. In 1946 he went to Grand Rapids for GE, working on paper mill jobs. He helped install the Beloit machine drive at KVP just before joining that company.

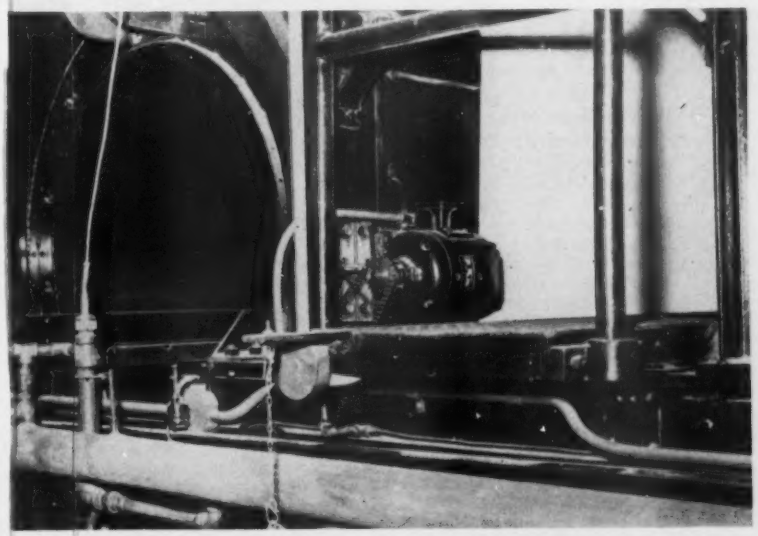


FIG. 3—TACHOMETER GENERATOR, geared to paper machine drive, transmits performance record to indicating instruments on operator's panel and to recording instrument in supervisor's office at KVP Mill.

NCC TOP OFFICIALS

LIONEL M. GOLDBERG (left), Vice Pres. and Asst. to the Pres., and J. L. KIPNIS (right), who is Executive Vice Pres., of National Container Corp., are congratulating LEONARD T. MOORE (center), Gen. Mgr. of NCC Chicago Box Plant for his plant's winning of first prize for efficiency and progress in the company's box plants. Mr. Kipnis and Mr. Goldberg are also top officials overseeing the company's pulp and paper mills in Jacksonville, Fla.; Ontanogan, Mich.; Tomahawk, Wis.; Big Island, Va., and Jaite, O.

Syracuse Sponsors Visits

Three faculty and 21 students of pulp and paper at Syracuse University in May visited Bagley and Sewall Co., Watertown, N. Y., Howard Smith Mills, E. B. Eddy Co., Kenwood Mills, Arnprior, Ont.; and Canadian International, Gatineau.

TWO NORTH CAROLINIANS IN PACIFIC COAST NEWS

JAMES M. STURKEY (left), North Carolina State grad who joined Northwest Filter Co. in Seattle after Navy war service, has become Northwest States and British Columbia Representative for SWECO Separator Division of Southwestern Engineering Co., a screen which is being adapted and tested for new pulp and paper uses. His office and home are at 4803 East 70th, Seattle. ARTHUR DAMMAN (right), whose appointment as Instrument Engineer for the new Ketchikan Pulp Co., Ward Cove, Alaska, was announced in a recent issue of PULP & PAPER. He is also a North Carolinian, who did grad work at U. of Wash., has been with Bristol Co., Instrument Co. of Seattle, and Bumstead & Woolford (Foxboro), Seattle.

SWECO Separator Screens Represented by Sturkey

Northwest Filter Co. and Southwestern Engineering Co. have agreed to turn over representation for the SWECO separator screen in the Pacific Northwest states and British Columbia to James M. Sturkey, 4803 East 70th, Seattle, Wash. (5).

The SWECO separator is new to the pulp and paper field of the Far West although it is successfully used in other industries. It has been adapted or is being tested for various pulp, bark and chip vibration mechanical screening uses, as well as for knotter or thickener use. The machine is primarily a compact, rigid, circular body vibrating about its center of mass. It has high capacities and speed and is said to provide clean separation, accurate sizing, long screen life, etc.

Mr. Sturkey, born and raised in North Carolina, graduated in chemical engineering from North Carolina State in 1942. He joined the Northwest Filter Co. in Seattle after being separated from Navy service there, in 1946. After Northwest Filter became agency for SWECO Separator Division of Southwestern Engineering, Mr. Sturkey specialized in its development. With reorganization of Northwest Filter with W. R. Gibson and J. Rodger Sheridan as partners and new plans for their activities, Mr. Gibson agreed to turn over the SWECO agency to his former assistant, Mr. Sturkey.

McDonald, Wakeman Elected

Manuel C. McDonald, president of Great Northern Paper Co., and Arthur G. Wakeman, executive vice president, Coosa River Newsprint Co., have been elected directors of the Newsprint Service Bureau.

News and Notes from ■ ■ ■

EQUIPMENT AND SUPPLY COMPANIES

FOR LOCKPORT IN EAST

JOHN A. MANLEY, 2730 Eldon Ave., Drexel Hill, Pa., became associated with the LOCKPORT FELT CO. as Field Representative covering Delaware, Maryland, Pennsylvania and New Jersey. This territory was formerly covered by W. W. Campbell, Jr., who was appointed Assistant Sales Manager.

SAMUEL M. LANGSTON CO., Camden, N. J., has named Fred A. Leser, Jr., as sales engineer. He is a graduate of University of Texas, and for 5 years has been with the Philadelphia office of Westinghouse. He will serve this industry in sales and service of Langston's roll slitters, rewinders and converting equipment.

THE SANDY HILL IRON & BRASS WORKS, Hudson Falls, N.Y., announces Raymond T. DePan has joined its technical and sales engineering staff. Mr. DePan is a graduate of the New York College of Forestry, and joined the industry with The Flintkote Co., and later as a specialist for Downingtown.

GENERAL DYESTUFF CORP., has issued a 28-page booklet on modern dyeing methods for such materials as Dacron, Dynel, Acrilan, Orlon, Vicara, Nylon, Acetate, Celcos, Saran and Fortisan recently and may be obtained by writing GDC., New York.

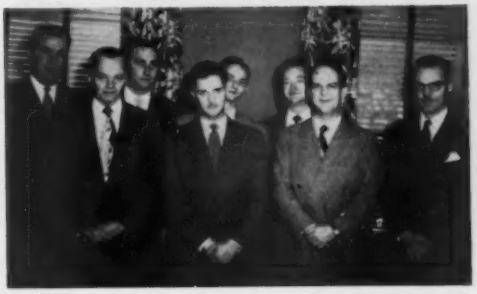
CLARK-AIKEN CO., Lee, Mass., at the annual packaging show in Atlantic City showed a new line of Clark-Aiken Goebel slitters and rewinders for the first time. Four different types of the machines were shown in addition to one of Clark-Aiken's regular cutter-layboy.

DOWNINGTOWN MANUFACTURING CO. has announced a new cutter being manufactured in this country for the first time, which is a development of the Masson-Scott Cutter and Layboy manufactured in Great Britain for a number of years. For details request Bulletin 252.

HOOKER ELECTROCHEMICAL CO. has named Herbert J. Heesch as field sales supervisor. He will make his headquarters in Niagara Falls.

WILLIAM A. ROBERTS, president, *ALLIS-CHALMERS*, Milwaukee, was principal speaker at the Electric Club, Biltmore Hotel, Los Angeles April 14. With him were Col. Richard Moody, A-C district manager, Los Angeles, and A. J. Schmitz, Pacific Coast manager, general machinery division. Mr. Roberts declared installed kw. generator capacity will be doubled by 1965. However, he said, "Taxes are draining off so much money. It becomes difficult to understand where new money will come from."

FOR REICHHOLD IN THE WEST



Salesmen for Reichhold Chemicals, Inc., recently held a sales conference in Seattle, under direction of E. M. Skytta, District Sales Manager and T. L. Hodgins, RCI Vice President and General Manager. Attending the conference were: (left to right) Roy Durkin, Seattle; Einar Huovila, Eugene, Ore.; Bill Gray, Seattle; Lyle Hinman, Eureka, Calif.; John Lemieux, Portland, Ore.; Berchal Mantieth, Eugene; E. M. Skytta; and T. L. Hodgins.

J. EBERT BUTTERWORTH was elected president of H. W. Butterworth & Sons Co., Behtayres, Pa., at the annual meeting in March, succeeding Harry W. Butterworth, Jr., who became chairman of the board.

STOWE-WOODWARD's Annual Sales Conference brought sales engineers from all territories to Newton Upper Falls, Mass., in March. A program by Frederick L. Phelps, manager of roll sales, covered rubber roll operating conditions and latest manufacturing developments. Sales engineers attending: Oliver P. Arnold, Roger P. Arnold, John D. Dickson, Asa F. Fisk, John H. Glander, Edward S. Greene, William E. Greene, Howard H. Jensenius, Clarence Morganstern, John D. Retallick, Charles M. Schermerhorn, Roy Tewksbury, Fletcher P. Thornton, Jr., Bradford West.

THE FOXBORO CO., Foxboro, Mass., says high precision in measuring roll surface temperatures, from −40° F. to +450° F., is obtained with the unique temperature measuring head, developed and used in conjunction with a high speed Dynalog Recording Controller.

J. O. ROSS ENGINEERING CORP. officially opened its new million-dollar plant in Highland Park, N.J., April 12, with more than 500 invited guests present for the ceremonies. The plant, third now operated by Ross, will manufacture Ross Industrial air systems for pulp and paper. Officials taking part included J. O. Ross, founder and chairman; S. W. Fletcher, president; and Ryan Sadwith, vice president of manufacturing.

MIXING EQUIPMENT CO., 200 Mt. Read Blvd., Rochester (11), N. Y., will send on request its catalog B-102 describing turbine-type *Lightnin Mixers* for open and closed tanks and factual discussion of fluid agitation with 32 illustrated pages. Tells how to select mixing impellers.

THE BRISTOL CO. announces its new line of Series 500 Open Channel Flow Meters (Bulletin F 1606) for measuring, recording, and controlling the flow of water, sewage, industrial plant effluent, irrigation water, and other liquids. The new meters supersede the Model 40M line.

CLARK & VICARIO CO., Bronxville, N. Y., has announced that Jack Stewart, formerly of Goslin-Birmingham Co., has joined them and will make his headquarters at Tarrytown, N.Y. Mr. Stewart, who has contacted the industry in sales of evaporators, will now devote principal time to sales and service for the Rotareaed "Deculator" for deaeration of paper stock.

D. J. Murray Addition

FRED C. BOYCE, re-elected Pres. for 20th time of D. J. MURRAY MFG. CO., uses gilded shovel to turn ground for new 115x126 ft. plant addition at Wausau, Wis. Others l to r: A. W. PLIER, Exec. V.P., H. G. BECK, Wausau, C of C Pres.; Mayor H. A. Giese; W. G. ROEHL, C. of C. Sec.; IRVING OBEL, architect.

Spaulding Succeeds Kertz in Portland Post

Ben S. Spaulding, formerly in aircraft and air lines industries, has joined John W. Bolton & Sons, Inc., of Lawrence, Mass., to be its Pacific Coast sales representative, succeeding the late Ernie Kertz. Mr. Spaulding will live in Portland, Ore.

He will work closely with O. E. Larson, a Bolton veteran since 1928, who moved west to Oakland, Calif., a year and a half ago, and who will continue in his capacity as Pacific Coast sales engineer.

They will represent the Emerson Manufacturing Division of Bolton to this industry in all Far Western states. And also Hermann Mfg. Co., Lancaster, O., makers of Claflin refiners, whose sales agreement with Bolton-Emerson was announced in this magazine last fall.

Mr. Spaulding has been district sales manager of Western Air Lines in San Diego. Born in Minneapolis, he was in the Navy four years as naval air transport officer. He is married, has one son, 5.

FOLEY URGES NEW IDEAS FOR COST CUTTING

WESTERN CANADIAN MEETING

AT HARRISON HOT SPRINGS (l to r): HAROLD FOLEY, Powell River President, principal speaker; TOM WILSON, MacMillan & Bloedel Mill, Pt. Alberni, who won Powell River Award; DOUGLAS JONES, Engineer-Secy. of Canadian Tech. Section; HARRY ANDREWS, Vice Pres., Powell River Co.; M. F. SMITH, Sydney Roofing & Paper Co., Western Branch Chairman.

OFFICERS, Canadian ostern ranch (l to r): Western Branch (l to r): KEITH EADIE, MacMillan & Bloedel, 1st Vice Ch.; M. F. SMITH, Sidney Roofing, Chairman; RALPH PATTERSON, Powell River, 2nd Vice Ch.; MEL OKE, Davies Paper Box, Sec.-Treas.; MORLEY PATTERSON, Pacific Mills, past Chairman.

New developments in the industry's technical field were discussed at the annual Spring meeting of the Canadian west coast group of CPPA at Harrison Hot Springs, B. C., May 1-3. The sessions drew delegates from every mill in British Columbia as well as many American guests from the Northwest states. Registration totalled approximately 150.

Among executives present were Harold S. Foley, president of Powell River Co., recently returned from Europe, who addressed a luncheon meeting on the danger of rising costs.

"Compared with conditions barely ten years ago, the increases in cost of production in pulp and paper mills have been fantastic, in fact alarming," declared Mr. Foley. "We may as well recognize the fact that the honeymoon is over. We can no longer produce on a reasonable cost basis competitive with the world, nor can we be sure of selling everything we produce. Let's be realistic and get down to earth; the easy days are gone."

But Mr. Foley said the present situation is not without opportunity.

"More than ever before the industry is faced with a challenge," said Mr. Foley. "Under present conditions certain costs are uncontrollable. The industry's ability to economize, to produce higher quality goods at a competitive price depends more and more on the drafting tables and testing laboratories, on the ingenuity and resourcefulness of the engineers and technical men.

"Technical groups should present ideas to management in a way that can be clearly understood and, incidentally, it's a good idea to have a speaking acquaintance with the sales and financial departments. Remember always that research and engineering now, as never before, must include as much economic horse sense as scientific principle."

New Officers

The new chairman of the Technical Section, Pacific coast branch CPPA, is Marion F. Smith, technical director of Sidney Roofing & Paper Co., Victoria, succeeding Morley Patterson, Kraft superintendent, Pacific Mills, Ocean Falls. Vice-chairman is Keith Eadie, plant engineer, MacMillan & Bloedel, Port Alberni, second vice-chairman, Dr. Ralph Patterson, technical director. Powell River Co. Mel Oke, Davies Paper Box Co., Vancouver, was re-elected secretary-treasurer.

Dissolving Pulp

An informative paper was by Mervin E. Martin, technical supervisor of Columbia Cellulose Co., Prince Rupert, who directed research operations at the Celanese Corp.'s pilot plant at Cumberland, Md., for several years developing processes for Prince Rupert.

Discussing recent developments in dissolving pulp, Mr. Martin reported that the total amount of viscose and acetate yarns produced last year in the U. S. exceeded 1.2 billion pounds or 600,000 tons, which was ten times the figure for the annual output 20 years earlier.

Most viscose grade pulp is made from carefully controlled calcium bisulfite digestion of wood chips, said Mr. Martin, and one of the difficulties from the dissolving pulp manufacturer's viewpoint is the necessity for producing viscose grades in bales of relatively small sheet size. The size of these sheets varies according to the size of the steeping press in use by the viscose rayon producer who in this case is the customer. If it were possible to cut the sheets to a larger size, such as 28 x 34 inches, handling problems would be considerably less costly for the pulp producer.

"Control of cellulose viscosity, as measured in cuprammonium or cupriethylene diamine solutions, within narrow limits is of prime importance in producing viscose grade pulp," said Mr. Martin. "Control of sheet dimensions, alpha cellulose content, maintenance of low ash, pitch and metal content are other necessary requirements for this grade of purified wood pulp."

The Columbia Cellulose authority told of the trend away from calcium base pulping of coniferous woods in favor of acid sulfite pulping with soluble base cooking such as ammonium or sodium bisulfite. The use of magnesium bisulfite pulping had also advanced.

In purification of woodpulp for the dissolving market, the principal new developments have been (1) adoption of continuous processing procedures in bleach operation, (2) improvements in alkali refining of dissolving grade pulp to remove hemicellulose without undue loss of pulp yield, and (3) introduction of chlorine dioxide bleaching with advantage of removing undesirable colored materials and color forming products without degrading the pulp by depolymerization as measured by viscosity determination, he said.

Mr. Martin described how his company at Prince Rupert had effectively used a Squier bark press, a three roll cane mill, for pressing the bark removed from logs by the Bellingham type log barker. This machine had demonstrated its usefulness in reducing moisture content of the bark and wood refuse to a relatively low figure, thereby making possible disposal of pressed bark by conveying it directly to boiler house furnace. The pressed bark entered the furnace in a finely divided form and burned well, substantially reducing the quantity of coal burned, he said.

Other Papers

E. F. Machelle told about wood and chip handling at the Harmac mill of MacMillan & Bloedel, where bleached kraft pulp is produced almost entirely from waste from sawmills and plywood plants. If all the province's wood waste from present operations could be effectively utilized the output of chemical pulp could easily be doubled, he said.

Jack MacMillan and Harry Bamford of Westminster Paper Co., presented an account of peroxide bleaching of groundwood pulp through the use of Buffalo

CANADIAN MEETING SPEAKERS AND OTHERS (l to r): M. E. MARTIN, Tech. Director, Columbia Cellulose Co., Prince Rupert (Celanese Corp.); E. A. ENRIDGE, Quality Control Supt., Columbia Cellulose; JOHN McMILLAN, Chemist, Westminster Paper Co.; HARRY BAMFORD, Groundwood Supt., Westminster Paper; E. F. MACHELLE, Chemist, MacMillan & Bloedel, Nanaimo, B. C., and R. A. BUTLER, Pacific Mills.

Electric Chemical Co. (New York) equipment, described in PULP & PAPER when the process was initiated at New Westminster two years ago.

Uses of Glues in Mills

W. L. Robb, Swift Canadian Co., outlined the diversified uses of glues and adhesives in the industry. In Canada alone, more than $10,000,000 worth of these products were used in the mills last year, reported Mr. Robb.

He described the use of glue in pure colloid form in the operation of various types of savealls (Bird, Oliver, Impco, Peterson and Swedish types).

The Powell River award for the best technical paper to be presented by a B. C. mill employe below supervisory status was presented by Mr. Foley to Tom Wilson, of the engineering staff, MacMillan & Bloedel, Port Alberni, whose subject was the utilization of waste through slab barking.

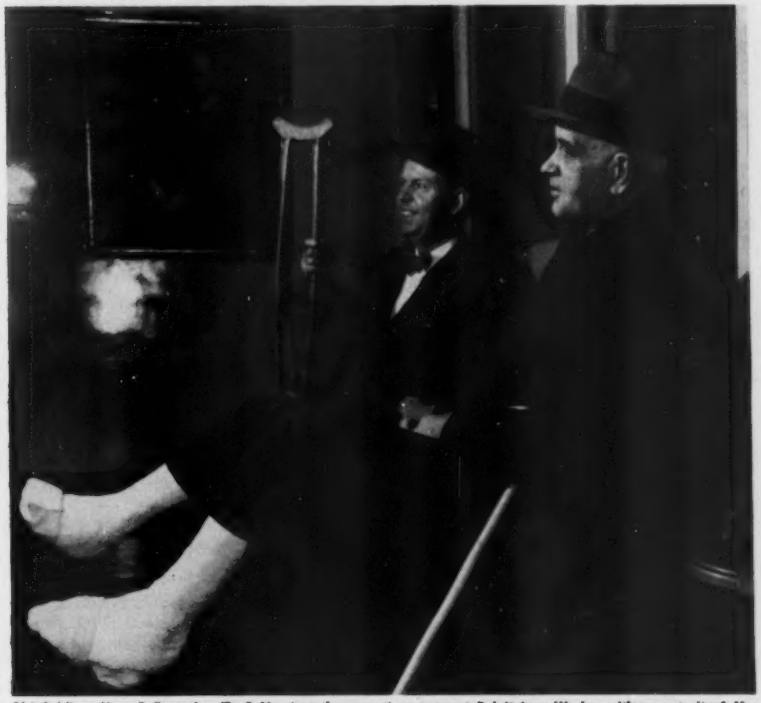
A method for determining a quality efficiency rating for paper mill production was described by R. A. Butler, assistant to management, Pacific Mills, in a paper which he prepared with T. D. Syme, technical supervisor at Ocean Falls. The system had been used for the past year to evaluate the quality of product from five paper machines, two producing newsprint and three kraft and sulfite specialty grades. The procedure has also been set up in another Crown Zellerbach Corp. mill.

The method takes into account sheet appearance, roll condition and physical test features of production, together with diversion of tonnage from standard production for quality reasons. The quality efficiency figure has been found a useful tool in placing before paper mill men, from operator to executive, the quality picture in a single, easily understood, numerical value.

The conventional procedure of dividing actual production by the possible and stating the result as a percentage had its defects, said Mr. Butler, since quality of product was overlooked. The procedure as worked out by Pacific Mills consisted of placing the production of a grade into two categories: 1. Tonnage which is approved for shipment at the machine. 2. Tonnage which does not meet the qualifications physically, general appearance, roll condition and mill policy, and is held from production for reinspection, retesting or rewinding.

Paper falling into category 1 is evaluated on the basis of general appearance of the sheet, roll condition and actual physical test values. A single percentage figure is calculated to reflect this quality evaluation. The evaluation of category 2 is based on final disposition of the tonnage involved—whether it is rewound and shipped against the order, diverted to a lower quality level tonnage or returned to the beaters. A quality rating for paper in this category is obtained by starting with the rating for shippable paper of that grade and adjusting downward by one of various factors depending on the disposition. By weighing each of the two values for categories 1 and 2 respectively, in proportion to the tonnages involved, a quality efficiency rating is determined for the grade in question.

A NEW "ANKLE" TO AN OLD STORY



Old Soldiers Home? Doctor's office? No, just the reception room at Beloit Iron Works, with a portrait of Mr. Aldrich, early President of company, hanging on wall. In "good old days," Beloit Iron Works was often referred to as the "Old Soldiers Home," because of the unusually high proportion of employes with long company service records. In this picture, E. Sterling Skinner, Assistant Chief Engineer (left) and Jess Phillips, Traffic Manager (right) add a new angle to the old story, as they compare notes on broken left ankles. Both lay the blame for the breaks on the rigors of an unusually rough Wisconsin winter.

IMPCO Increases Service On Pacific Coast

Increased pulp and paper activity on the Pacific Coast has caused Improved Paper Machinery Corp., Nashua, N. H., to send help to its Coast representative, James Rubush, whose headquarters are in Wenatchee, Wash.

Will Osborne of IMPCO has moved west to be service man for company, which engineers and makes washing, screening, bleaching and other process equipment for mills, taking up permanent residence at Lakewood, near Tacoma, Wash. A Brooklynite, Mr. Osborne formerly was in the industry at the Ticonderoga, N. Y., mill and he came originally from Brooklyn.

Mr. Rubush, a longtime veteran in the industry and one of its leading chemical engineers, lives at 720 Idaho St. in Wenatchee. He will continue as sales engineer for IMPCO.

B. D. Warren To Return To Coast Hdqrs. Soon

Blanchard D. "Nick" Warren, whose appointment as manager of a new Pacific Coast office for Bird Machine Co. was announced in our April issue, made a "how'd'y'do" tour of Coast mills in that month and purchased a home in Portland, Ore.

He returned to South Walpole, Mass., and will move west with his family in the summer months.

Sven Fahlgren will continue trips to the Coast to deal with special services on Swedish equipment for Bird.

WHAT IS CORROSION?

DIFFERENT TYPES ARE DISCUSSED

By James T. Gow

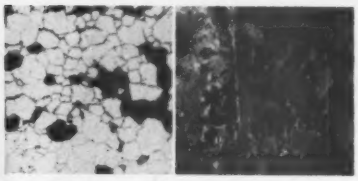
Chief Metallurgist, Electric Steel Foundry Co.

MR. GOW, the author, was former assistant head of Batelle Institute, has been with ESCO over three years.

Corrosion is the gradual destruction of metal by chemical or electro-chemical attack.

The corrosion resistance of metal is governed mainly by the characteristics of the corrosion product formed which is variable and dependent on the environment. A metal which substantially resists corrosion in atmosphere, moisture or chemical agents, is termed passive, while a metal actively corroded is termed active. The mechanism of passivity is attributed to the formation of a rather tenacious protective corrosion product film on the metal surface.

Corrosion failures may manifest themselves in many forms all of which are interrelated. The main forms of corrosion which may be encountered and which generally may be guarded against in the chemical industries by proper selection of metals and good engineering design, are as follows:



CORROSION EXAMPLES: At left is a photomicrograph showing intergranular corrosion and precipitated carbides at grain boundaries. Note that whole grains have fallen out.

Pitting corrosion on right—shows typical appearance of attack under a foreign deposit on a stainless steel metal surface.

1. *Uniform Corrosion:*

This is the most common form of corrosion and is characterized by chemical or electrochemical attack proceeding rather uniformly over the entire exposed surface. Generally the problem is solved by selecting a more corrosion resistant metal, the use of a protective coating, or inhibitors, or combinations of these methods.

2. *Intergranular Corrosion:*

This form of attack is confined to the grain boundaries of the metal. Its severity is often not evident on visual examination. This selective form of attack, of course, practically completely destroys the mechanical properties of the metal for the depth to which it has progressed.

It is well known that the plain austenitic stainless steels are susceptible to severe intergranular attack by many corrosives if not properly heat treated initially or if subsequently heated in the temperature range of about 650° to 1400° F. This susceptibility to intergranular corrosion results from the precipitation of chromium carbides in the grain boundaries. Fortunately this condition if once induced as in fabrication can be eliminated by reannealing and quenching from temperatures above 1950° F. before exposure to the corrosive environment. In cases where reannealing after fabrication is impractical or the service temperatures are within the sensitizing temperature range, it is necessary to use extra low carbon metal (.04% C. max.) and/or addition of stabilizing agents such as columbium or titanium which minimize or eliminate the tendency for carbide precipitation.

3. *Pitting Corrosion:*

This form of localized corrosion in which rapid penetration takes place at several small areas randomly located on a surface which otherwise frequently remains essentially unattacked, is the prevalent form of destruction of passive metal. However, it may occur with any metal. Such destructive pitting is unpredictable and its occurrence depends on the alloy and factors of exposure.

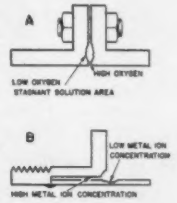
The mechanism of pitting on an otherwise passive metal surface requires an initial breakdown at a point with the resultant formation of an electrolytic cell, the anode of which is the active metal and the cathode the passive metal. The potential difference of this passive-active cell results in flow of current and attendant rapid corrosion of the active metal.

The initial breakdown in the passive film apparently occurs because of some heterogeneity in the metal surface, such as a rough spot, a non-metallic inclusion, a scratch or an indentation. Pitting may also develop under foreign deposits that prevent access of oxygen to the surface of the metal or cause differences in solution composition or concentration over the metal surface. A typical example is the pitting to be encountered beneath a barnacle in sea water. Corrosion of this nature can be minimized by periodically cleaning the surface of the metal.

In general, pitting is most likely to occur when chlorides and other halogens are present in an oxidizing environment. The tendency toward pitting is intensified by improper heat treatment which allows free carbides to be present in the structure. Conversely, pitting is minimized by proper quench-annealing or by maintaining carbon at 0.04% maximum.

4. *Galvanic Corrosion:*

When two dissimilar metals contact or are otherwise electrically connected to each other and are exposed to a corrosive liquid or electrolyte, a galvanic cell is formed and a current flows from one to the other. This galvanic current generally causes an increase in the corrosion rate of the anodic member over what would normally occur if there were no contact with a dissimilar metal. The relative areas of the anodic and cathodic members have a marked effect on the severity of the damage produced.



CONTACT CORROSION: A—From oxygen concentration difference in crevice of poorly fitted joint.

B—From metal-ion buildup in stagnant area within void formed by improper joining of tube to coupling.

The galvanic corrosion is usually localized near the point of contact and may appear as deep grooves or pitting in the anodic metal.

When use of coupled dissimilar metals is unavoidable in an engineering application, galvanic corrosion can often be minimized by (a) use of insulated joints, (b) avoidance of a small area of the more anodic metal compared to the area of the cathodic metal, and (c) by making both metals cathodic by applying a current from an external source, or (d) by applying a third metal more anodic than the two metals which will be corroded and will be replaced periodically.

5. *Contact Corrosion:*

This form of corrosion occurs when surfaces of two same-composition metals are contacting each other or separated by a loose gasket and wetted by the corrosive medium, or when a crack, crevice, scale or surface deposit exists on the surface of a metal part exposed to a corrosive liquid. Contact corrosion is also at times referred to as "concentration cell," "solution cell" or "crevice corrosion." It depends

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upon having different concentrations of the chemical solution in contact with different areas of the same metal. Hence any condition giving rise to areas of stagnant solution in contact with the metal promotes this form of corrosion. The mechanism is that of potential differences existing and current flow occurring between the adjacent areas contacted with different concentrations of solution. The destructive action being localized presents a large ratio of cathode to anode areas resulting in an accelerated destructive pitting action.

This type of failure can be minimized by avoiding accumulations of deposits on the metal surface, sharp corners, loose threaded or gasket joints, or other conditions that would favor stagnant areas of the solution.

6. *Stress Corrosion:*

The behavior of metal under the combined action of residual or externally applied tensile stresses and corrosion is termed stress corrosion. Static stresses may be left in by forming operations, welding, or heat treatment, and at times result from structural changes involving a change in volume or by thermal gradients. Stress corrosion fatigue failures may occur if the corrosion product film is repeatedly cracked by a reversal of stress or repeated stressing as by vibration or by repeated expansion and contraction.

Stress corrosion makes itself evident in the form of cracks with little if any appearance of ductility. Such attack usually occurs along localized paths. Once the attack begins in a corrosive environment the pit or crevice serves to concentrate the stress and destroy any protective film and keep anodic material exposed to the corrosive. If subjected to a high external load corrosion will progress to an accelerated rate with time as the unit stress increases.

The most common method of avoiding this form of failure is by stress-relief annealing, proper selection of alloys, and proper design of the equipment.

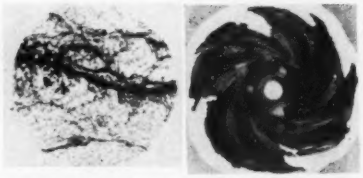
7. *Erosion-Corrosion:*

Since most metals depend upon the formation of a thin protective surface film for their resistance to corrosion, it is understandable that the most damaging destruction would result from a combination of chemical and abrasive conditions. If the normally obstructive layer of corrosion product is being continually removed by abrasion or other mechanical means, corrosion will progress at its high initial rate. Cavitation corrosion caused by impingement or vacuum cavities may also be classed as types of erosion-corrosion.

Often equipment which under static conditions would have a very long life fails in a relatively short time when mechanical or abrasive conditions are encountered such as the moving of liquids with solids in suspension, impingement by liquids moving at substantial velocities or vibration or flexing of the metal.

It is intended that the preceding discussion make evident that attention must be given to the nature of the corrosion medium, its velocity, and to good engineering design in order to combat corrosion successfully through selection of the most suitable alloy

(*The selection of corrosion resistant alloys to combat these types of corrosion will be discussed in a later article in* PULP & PAPER).



STRESS CORROSION (left), showing transgranular cracks indicative of a stress corrosion fatigue type of failure.

EROSION CORROSION (right). A typical erosion-corrosion failure of a pump impeller handling a corrosive containing an appreciable quantity of abrasive solids.

Hawkesbury Mill Uses Hardwood for Dissolving Pulp

For its Hawkesbury, Ont., dissolving pulp mill, Canadian International Paper Co. is now drawing upon hardwood forests within a 50-mile radius of the mill for most of its required wood. This is an entirely new source and cheaper supply.

A 3,000-acre forest farm at Harrington, Que., is operated as a demonstration forest for the nearby farmers and woodlot owners now supplying Hawkesbury. Hawkesbury cellulose, used for cellophane, rayon, acetate, plastic powders, etc., was formerly thought to be possible to produce only from black spruce or hemlock but now a new supply has been virtually "discovered" near the mill door. J. Thue is manager, S. A. Partridge, agent, and H. J. Whiting, plant engineer.

Extensive rebuilding to make possible the use of hardwood has been under way for some time and will increase capacity over present 210 tons a day.

CROWN Z LABORATORY

(Continued from page 42)

Driers: 9 rolls. Calender: 7 rolls. Drive: Westinghouse motor-generator set supplying current to 15 hp. D.C. motor, coupled to main driveshaft by chain drive. Separate units driven from main driveshaft by V-belts on Vari-pitch pulleys coupled to reduction gears.

COATER: Made especially for new Laboratory, will do reverse-roll coating, airknife coating, gumming, saturating and laminating. By John Waldron Corp. and the dryer by J. O. Ross Engineering Corp. The dryer or oven has five compartments with automatic temperature control.

REWINDER: By Cameron Machine Co. Will take rolls up to 52 in. width for rewinding and slitting. Drive is a 5 hp. D.C. motor supplied with current from a Westinghouse motor-generator set.

SMALL PULPING AND BLEACHING EQUIPMENT: (moved from existing Experimental Pulping Lab): Stationary register, stainless steel construction, giving 30 lbs. of pulp per cook; rotary digester, stainless steel, giving 10 lbs. of pulp per cook; Chlorination tower, for 5 lb. batches; Two stainless steel bleaching towers for 5 lb. batches; Four-plate pulp screen; Howe Weightograph, other items.

LABORATORIES: There are two laboratories for bench work and testing. Fitted with Kewaunee benches and hoods and Hallowell steel tables.

COLD ROOM: For storing pulp and resin samples that might deteriorate at normal temperatures. Refrigeration by York Corp.

HUMIDITY ROOM: TAPPI Standard constant temperature and humidity for conditioning and testing papers. Air conditioning by J. O. Ross Engineering Corp.

MACHINE SHOP: Small lathe, drill press and hand tools form the nucleus of what will eventually be a complete shop.

HEATING AND VENTILATION: All heating and ventilating supplied by Drew Engineering Co., Portland, Ore.

Personals

CANADIAN NOTES

H. A. KELLY, paper mill superintendent for Great Lakes Paper Co., Fort William, Ont., has been appointed mill superintendent, and *E. A. PATERSON*, formerly night superintendent, has been promoted to paper mill superintendent. Mr. Kelly was born in New Hampshire, the son of *CLAUDE KELLY*, now paper mill superintendent for Crown Zellerbach Corp. at Port Angeles, Wash. He started his career as press boy at Ocean Falls, B. C. for Pacific Mills. He went to Great Lakes in 1946 as boss machine tender. Mr. Paterson, Quebec-born, worked up through Wayagamack in Three Rivers, St. Maurice and Anglo-Canadian.

C. J. JEFFREY, new night superintendent for Great Lakes Paper Co., was instrumental in starting the first groundwood mill south of the equator for the Whakatane Paper Co. in New Zealand. He was at KVP before going to Fort William.

J. J. CRAIG, director of Tasman Pulp & Paper Co., New Zealand, visited Vancouver, B. C. in April and later went to New York gathering information in connection with the company's project for a mill in New Zealand.

A. E. NOBLE, with Canada Paper Co. many years, 25 as paper mill superintendent, has been appointed paper mills general manager for the company. *R. A. MOREY*, for five years assistant paper mill superintendent, has been promoted to paper mill superintendent at St. Francis division. *E. ST LAURENT*, with the company 36 years, is now superintendent of Watapeka division, Windsor Mills.

CHARLES R. CORNELL has been appointed full time secretary of the Packaging Association of Canada, representing an industry whose current sales volume is $500,000,000 a year.

R. L. WELDON, president of Bathurst Power & Paper Co., Montreal, has been awarded the Julian C. Smith medal by the Engineering Institute of Canada in recognition of his work for the industry.

P. M. FOX, president of St. Lawrence Corp., Montreal, has been elected to the board of the Dominion Tar & Chemical Co.

A. J. PHILIP, assistant general manager, Canada Paper Co., has been appointed a director of Donnacona Paper Co.

WARREN J. MACIVER, Montreal, specialist in conveyer design, has joined the staff of Howard Smith Paper Mills.

ARCHIE DE LAND, president of Kingcome Navigation Co., subsidiary of Powell River Co., has retired after 41 years of service, announced by Executive Vice-President M. J. Foley. Mr. DeLand joined the company in 1911 as a logging engineer.

GUY MINARD, manager of Spruce Falls Power & Paper Co. at Kapuskasing, Ont., recently presented top honors in first aid work to a company team comprising R. R. Foran, W. Brown, R. Doiron, L. Faliga and C. Featherstone.

GREAT LAKES PAPER CO., Fort William, Ont. promotions: C. J. Jeffrey, groundwood supt. becomes night mill supt.; B. Barichello, assistant groundwood supt. becomes groundwood supt., with A. Hewson, assistant; R. A. Wheatley, control supt., is now development supt., with J. J. Killin as assistant; R. E. Lee is sulfite shipping supt. and M. McKay, mill personnel supt. and J. C. Currie woods personnel supt.

Ohio and Northeast Community Relations

The program for regional or state community relations groups modeled after the Information Service, Wisconsin Paper Industry (see PULP & PAPER, April 1952) gained headway as the community relations committee of APPA sponsored committees for the Northwest and Ohio, and scheduled meetings in Wisconsin.

The Northeast industry set up executive and activities committees at a meeting at S. D. Warren Co., Portland, Me., for Maine, New Hampshire, Vermont and some mills in Massachusetts.

Donald M. Rochester, of APPA's committee, explained the job sought was coordination of efforts, and the bringing together responsible men for clinics, or "work-shops."

A similar meeting was held in Hamilton, O., May 19, sponsored by Champion Paper and Fibre Co. and APPA. A meeting at Neenah, Wis., June 18, 19 and 20, with the spring meeting of the IS-WPI is scheduled.

Hooker Ammonia Plant May Be Doubled

The $2,000,000 anhydrous ammonia plant of Hooker Electrochemical Co. started operating in May at Tacoma, Wash. The unit was constructed to serve growing requirements of chemical and pulp and paper plants of the Pacific Northwest. Its entire production has been contracted for and plans are under consideration to increase its capacity by 50%. All output will be shipped by tank car.

Hydrogen for the process is obtained from Hooker Type S and S-3 electrolytic cells which convert salt brine into caustic soda, chlorine and hydrogen. Nitrogen is obtained from the air by means of liquefying equipment by L'Aire Liquide, Montreal.

Design and erection were supervised by Chemical Construction Corp. General contractor was Roy T. Earley Co. of Tacoma.

Albert H. Hooker is western sales manager and Thomas E. Moffitt is works manager of the Hooker plant at Tacoma.

Prince George, B. C., Mill Assured Forest License

Amplifying a previous announcement in PULP & PAPER, President E. M. Herb states that his Westminster Paper Co., New Westminster, B. C., and affiliated Pacific Coast Paper Mills of Bellingham, Wash., in partnership with several other lumber and paper companies, will go ahead with a 300-ton bleached kraft pulp mill near Prince George, B. C., as soon as the British Columbia government authorizes a forest management license.

This license will be expedited, as Minister of Forests E. T. Kenney announced only a few details needed to be completed. Cost of the mill is more than $25,000,000. Sandwell & Co., consulting engineers of Vancouver, B. C., and Seattle, have completed preliminary planning, although the exact location has not yet been determined.

Mr. Herb says that the project is to give Westminster Paper Co. and other mills an independent source of pulp. His own company's production has been growing, and operation of a new Beloit machine later this year will lead to further expansion.

The Prince George mill will provide jobs for 300, with an additional 350 in the woods.

Big Coast Meeting Confirmed for Victoria

Confirmation of the Tri-Meeting of Pacific Coast TAPPI, and Superintendents and the Canadian Technical Section, Pacific Coast Branch, in Victoria, B. C., Sept. 25, 26 and 27, was reached by representatives of the three groups at Harrison Hot Springs, B. C. in May. Sessions will be at the Empress Hotel.

To Decide on Mill

Powell River Co. expects to decide within the near future whether or not to proceed with the proposed establishment of a pulp or paper mill at Kitimat, B. C., where Aluminum Co. of Canada will have a substantial surplus of power when its present $200,000,000 construction program is completed.

MEXICAN MILL

(Continued from Page 36)

150-160° C. for a few hours, which improves its strength (modulus of rupture), resistance to water, and workability. After the heat treatment the wagons are transferred to another system of chambers for humidification.

The hardboard now only requires cutting to the desired size in a semi-automatic cross- and length-cutting machine. The board is then stocked in the warehouse and prepared for shipment.

Some hardboard after the press is also treated in a heated bath of drying oils, then subjected to a baking process, followed by humidification.

The oil tempered board will have a modulus of rupture of about 10,000# per square inch, as compared to the standard hardboard which possesses a modulus of rupture of about 6,000# per square inch.

In just one year's time, this Fibracel hardboard has found wide use throughout Mexico.

Brown Begins Operation Of Dorrco FluoSolids System

Production of SO_2 gas from pyrrhotite concentrates got under way at Brown Co.'s plant in Berlin, N. H., late in April and was observed by a visiting PULP & PAPER editor. The plant is first of its kind in the industry, and employs the Dorrco Fluo-Solids System, developed by The Dorr Co., Stamford, Conn. The plant is under Gordon Brown, assistant to the president of Brown Co., and early operation indicates economical production of useable gas.

The Brown plant, as outlined in the August 1951 issue of PULP & PAPER, is expected to produce 9000 tons of sulfur equivalent in the form of SO_2 gas annually, dry basis, through the roasting in the fluosolids system of 25,000 tons of pyrrhotite concentrates received by rail from Vermont Copper Co's mine at South Strafford, 100 miles away.

Strattner Names NPA Division Chief

Appointment of John C. Clay as Director of the Containers and Packaging Division of the National Production Authority was announced today by Lawrence W. Strattner, (West Virginia Pulp & Paper Co.) Assistant Administrator for the Chemical, Rubber and Forest Products Bureau, NPA. Mr. Clay is on leave as assistant to the executive vice president of National Starch Products Inc.

Typical installation of three type "D" Asplund Defibrators in the hardboard plant operated by Fibracel S. A., in Mexico.

Creating Sales Through Better Finishes

Bright, fresh color sells gift paper. And top quality calendering gives the smooth, uniform surface that will take the inks and reproduce the right colors.

Mills in every part of the country know how important proper calendering is to the quality of the finished paper product. They know the superior results they get from Butterworth Calender Rolls at low operating costs.

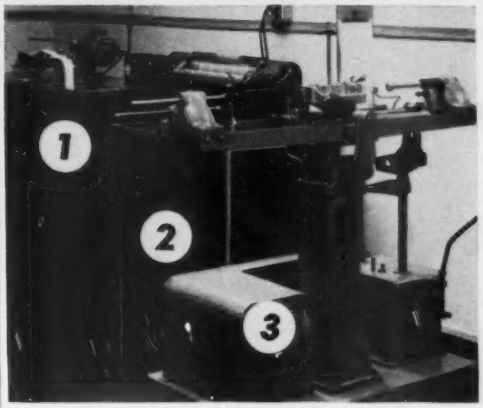
If you are having difficulty with expensive "downtime," make this test. Place a single Butterworth Roll in your stack. First, examine the fine finish it gives. Then time it to see the extra production hours you get without refill or turn-down.

Butterworth Calender Rolls give the finish you want because they are made to your specifications. Tested for hardness, smoothness and density before delivery. We can also refill your present rolls. Write us today about your needs.

For full information, write or call H. W. Butterworth & Sons Company, Bethayres, Pennsylvania – 187 Westminster Street, Providence, R. I. : : 1211 Johnston Building, Charlotte, N. C.

Butterworth
CALENDER ROLLS

TERRIFIC fatigue test adds life to ORR felts



1 FATIGUE TESTER 2 ABRASION TESTER 3 YARN TESTER

For the moment, disregard the abrasion and yarn tester shown above and concentrate on the fatigue tester in the rear.

There, Gentlemen, is a laboratory instrument that starts out by straining a felt about the same as the operation of a paper machine would strain it; then, as the tests proceed, increases the tension many times more than would the action of any paper machine.

In this way, the toughness of the fabric is measured, from which findings Orr has learned to make felts tougher—far tougher.

Yarn and fatigue testing, as suggested by the other two instruments above, also plays important roles in the production of tougher and longer lasting felts.

Nor is that all—chemical impregnation of standard Orr felts tacks on still additional days of operating service.

And that is what Orr has done, and is doing to reduce paper mill felt bills.

Orr-Chem (treated) felts
An-Boc (anti-bacterial) felts
Standard (untreated) felts

THE ORR FELT & BLANKET CO.
PIQUA, OHIO

HAM FELTZ says:

Cushioned knuckles

leave no scars . . .

The open spaces between strands of a papermaker's felt are easily seen by the naked eyes when the woven fabric is removed from the loom. They vary in size and shape according to the pattern of the weave — large holes for high speed machines, smaller holes for low speeds.

When the fabric has been shrunk, fulled and napped, the pattern of the weave is cushioned. It can't leave its imprint upon the sheet that is formed on it. But the open spaces remain open—to carry off the water that is squeezed out by the press.

You will get a lot of tonnage from every Hamilton Felt if you use ordinary care to keep it clean but you will save money by changing felts before the "knuckles" begin to leave their marks.

From the thinnest tissue to the heaviest board, there is a Hamilton Felt that will do your work without leaving felt marks in your sheet.

SHULER & BENNINGHOFEN

HAMILTON, OHIO

MIAMI WOOLEN MILLS — Established 1858

Hamilton Felts

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and

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INDUSTRIAL WATER

PURIFICATION PLANTS

CUSTOM-DESIGNED

TO FIT PLANT REQUIREMENTS,

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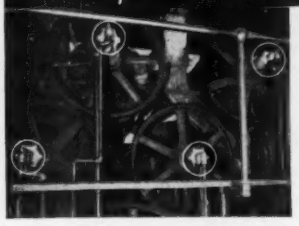
Only Johnson Joints offer *all* these cost-cutting, trouble-saving, production - boosting benefits. *Only* Johnson Joints end *all* the shortcomings of old style stuffing boxes, without compromise of any sort. No wonder so many hundreds of mills, and so many machinery manufacturers, have standardized on Johnson Joints. Why not find out how quickly Johnson Joints can pay their own way in your mill.

Johnson Rotary Pressure Joints



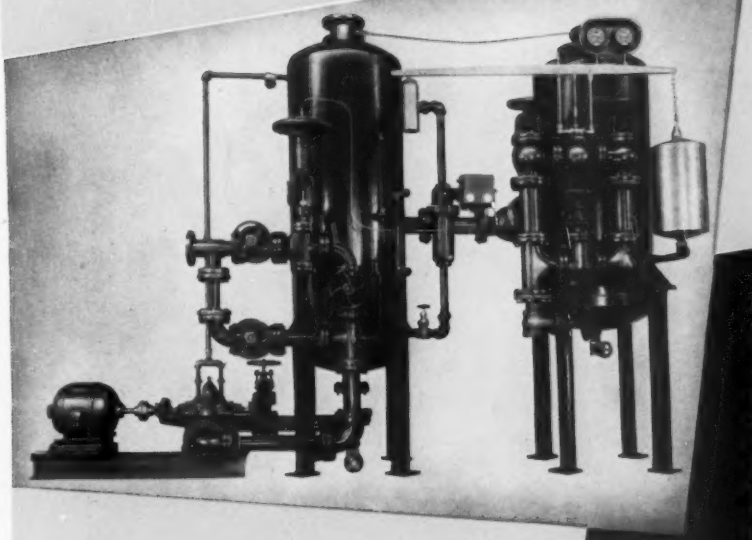
Write for catalog showing sizes and styles for all needs.

Installation in a midwestern mill — some of the 562 Johnson Joints purchased by this company.

The JOHNSON CORPORATION, 849 Wood Street, Three Rivers, Michigan

FIRMS YOU SHOULD KNOW
Advertising Index

an eye opener...



A typical Fulton Unit for a two-section Drying System on medium size machines.

10% to 30% production increase guaranteed.

Positive reduction in steam costs—even with tonnage gains.

Improved quality. Uniform drying. Less cockle or curl.

Moisture content control. No over-drying.

Engineering survey-machine study. No obligation.

It is almost incredible—but an eye-opening nevertheless—that the prompt removal of condensate and air from paper machine dryers has prompted the installation of 1000 Fulton Dryer Drainage Systems.

That is a lot of installations and potent indeed, must be the advantages that accrue.

Fulton Systems are standard equipment these days—so specified by every builder of paper machines in America. Almost all of the newer machines have them. Hundreds of the older machines have them—but not all.

It is of this latter group—older machine operators and smaller machine operators—that these five questions are directed.

- Would you like to do a more uniform job of drying?
- Would you like to eliminate cockle and curl?
- Would you like to avoid over-drying?
- Would you like to cut steam costs?
- Would you like to dry faster and increase your tonnage?

If your answers are yes—be your machine old or small—Fulton Dryer Drainage can be applied to 3 great advantages—and at reasonable cost.

Get our technical bulletin. It's a real eye opener.

fulton dryer-drainage systems

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